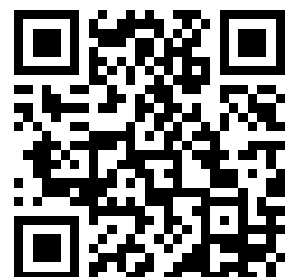

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OHIO STATE UNIVERSITY

R E P O R T S
FROM
C O M M I T T E E S :
FOUR VOLUMES.

— (4.) —

RADIOTELEGRAPHIC CONVENTION
TO
YORK (MICKLEGATE STRAYS) BILL.

Session
12 February 1907 — 28 August 1907.

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STATE OF OHIO
LEGISLATURE

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1907.

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REPORT

FROM THE

SELECT COMMITTEE

ON

RADIOTELEGRAPHIC CONVENTION;

TOGETHER WITH THE

PROCEEDINGS OF THE COMMITTEE,

MINUTES OF EVIDENCE,

AND APPENDIX.

Ordered, by the House of Commons, to be Printed.
8 July 1907.

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1907.

ORDER OF REFERENCE.

[*Friday, 8th March 1907*]:—*Ordered*, That a Select Committee be appointed to consider the Radiotelegraphic Convention, signed at Berlin on the 3rd day of November 1906, and to report what, from the point of view of national and public interests, would, in their opinion, be the effect of the adhesion or non-adhesion of this Country to the Convention.

The Committee was accordingly nominated of Mr. Adkins, Mr. Sydney Buxton, Sir John Dickson-Poynder, Mr. Enoch Edwards, Mr. Gwynn, Sir William Holland, Mr. Lambert, Mr. Arthur Lee, Mr. Macpherson, Sir Gilbert Parker, and Sir Edward Sassoon.

Ordered, That the Committee have power to send for Persons, Papers, and Records.

Ordered, That Four be the Quorum—(Mr. *Whiteley*).

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REPORT.

THE SELECT COMMITTEE, appointed to consider the RADIOTELEGRAPHIC CONVENTION, signed at Berlin on the 3rd day of November 1906, and to report what, from the point of view of national and public interests, would, in their opinion, be the effect of the adhesion or non-adhesion of this Country to the Convention, have agreed to the following REPORT :—

INTRODUCTORY.

1. The Committee have held 13 meetings and examined 18 witnesses whose Meetings³ official or commercial experience and scientific attainments qualified them to give evidence on the subject referred to the Committee.

The terms of Reference were as follows :—“That a SELECT COMMITTEE be Reference c. appointed to consider the RADIOTELEGRAPHIC CONVENTION, signed at Berlin on the 3rd day of November, 1906, and to report what, from the point of view of national and public interests, would in their opinion, be the effect of the adhesion or non-adhesion of this country to the Convention.”

2. Among the witnesses whose evidence the Committee have taken were several Witnesses. of the delegates appointed by Great Britain to attend the Berlin Conferences of 1903 and 1906, referred to later ; Government representatives of the Admiralty, War Office, Post Office, and Colonial Office ; a witness from Lloyd's and one from a steamship company, representing the shipping interests ; scientific and other witnesses to explain various systems of radiotelegraphy other than that known as the Marconi system ; representatives of the Marconi Companies, and Mr. Marconi himself. Although the Committee had not the advantage of hearing evidence from any member of the Committee of Defence, they have been assured on the highest authority that there was no difference of opinion among the Members of that Committee as to the satisfactory nature of the Convention from the point of view of the interests of the country.

3. The Committee have been furnished by several witnesses with a general History of wire- review of the past history and development of the art of wireless telegraphy—termed less telegraphy. also radiotelegraphy, the name officially adopted by the Convention—since it has been in practical operation on practical lines in Great Britain. This history may best be briefly reviewed by an account of—

(I.) The invention and development of wireless telegraphy from a scientific discovery to an applied art ;

(II.) Its political history and International recognition.

SCIENTIFIC HISTORY.

4. Wireless telegraphy or radiotelegraphy means the transmission of signals by What radiotele- electrical energy between two points which are not connected by a wire or other graphy is. metallic conductor. The term is specially used—and exclusively used in the Conven- Gavey, 1792. tion—in connection with instruments employing the Hertzian waves, so called from Lodge, 2116. their discoverer, Heinrich Hertz. Marconi, 2888 Smith, 3. Fleming, App.

Earlier methods.
Gavey, 1785-90.

Before the discovery of the Hertzian wave other methods were used experimentally for sending messages across space without conjunction other than the earth :—

Wireless telephony.
Gavey, 1788-90.

(1) By earth induction, using two parallel or nearly parallel wires erected, for example, on either side of a stream, each end being fitted with telegraphic apparatus; (2) by electric-magnetic induction; and (3) by a combination of the two former. This means was taken up by Sir (then Mr.) W. Preece in 1885 (then electrician to the Post Office) and a system was set up of telegraphic communication without direct connecting wires between places not more than six or seven miles apart. A wireless telephone service has been established by Mr. Gavey on this basis between Holyhead and the Skerries, and recently telephonic speech has been exchanged between the two stations with the greatest ease.

Means employed.
Gavey, 1791 *et seq*
Smith, 4.

5. These induction systems are not, however, suitable for communication over a long distance, nor for communication with ships, and the methods now used for that purpose are all based on the employment of the Hertzian waves. The means employed in transmitting messages across space without physical connection consists broadly of two stations, a transmitting station and a receiving station. At each of these stations a wire or wires must be erected in the air by means of a mast, tower, balloon, kite, etc. This structure of wires is known as the antenna or aerial. Speaking generally the greater the range intended to be covered the higher or more extensive must be the antenna or aerial. The energy is generated by a battery or generator worked by a steam, gas, oil, or other power engine, and is communicated to the aerial by the transmitting apparatus proper.

Receiving apparatus.

Smith, 8.
Fleming, App.

6. The receiving apparatus is also connected with the aerial. There are many forms of receiving apparatus in use, and it may be said that one of the principal differences between the several systems of wireless telegraphy consists in the various forms of receiving apparatus. In some the apparatus automatically records the dots and dashes of the Morse alphabet, but in most forms a telephone is attached, and the operator hears the dots and dashes, and this permits of more rapid working than any recording instrument yet devised.

Range.
Heaton, 2725.
Marconi, 3078.
Smith, 9.

7. With the most powerful stations very great distances have been covered, and signals have actually been transmitted across the Atlantic, but in the present condition of radiotelegraphy communication has not been effectively maintained with regularity over so great a distance, especially by day. The maximum effective range for regular communication by day or night may be put, possibly, at 1,000 or 1,500 miles; but this state of affairs is changing almost month by month. Wireless messages are frequently sent from Poldhu to Gibraltar and Malta. As regards the ordinary ship and shore stations the effective range may be said to vary between 50 and 300 miles, possibly rather more, according to the power of the station.

Direction.
Gavey, 1795,
1803.
Marconi, 3004.
Smith, 10.
Loring, 1136.
Payne, 977-9,
981.
Fleming, App.

8. The signals are usually sent out with equal energy in all directions. A message sent out, for instance, from the high power station at Poldhu, in Cornwall, and intended for ships in mid-Atlantic, has been equally received at Nauen, near Berlin, and at the Dutch station at Scheveningen, or at Gibraltar. Attempts have been made to devise methods of directing the waves, or at least of sending them with the greatest energy in one particular direction, but so far only with moderate success. The Admiralty are able to determine the direction in which a wireless message is coming under certain conditions.

Selectivity, tuning out.
Gavey, 1795-7.
Lodge, 2121, etc.
Maskelyne,
2558-9.
Marconi,
2895-2979.
Fleming, App.

9. The main defect which was first found in the working of wireless telegraphy, resulted in part from this inability to control direction. As every receiving station within range of a transmitting centre could read all the messages sent from that centre, it was not possible for more than two stations in a given area to interchange signals at a given time without mutual interference. It was impossible, of course, for the ether within a wide radius thus to be monopolised by two persons if the invention was to be of real practical value. It was also obvious that if two sets of apparatus

could be so accurately adjusted the one to the other as to ensure reciprocal radiation, whilst other apparatus not so adjusted would not be affected, the practical problem would be solved. It is in the direction of "syntony" or the "tuning" of apparatus so as to induce "selectivity" between them that recent scientific research and experiment have been chiefly concentrated; and, as will appear later, the more or less complete manner in which this has been achieved between different systems constitutes one of the difficulties placed before the Committee.

10. The Committee do not wish to express any opinion on controversial questions of priority and patent right, but it appears to be generally admitted that the Hertzian waves were first experimentally applied for practical telegraphic purposes in 1895-6 by Mr. Marconi. Many inventions and improvements by Mr. Marconi and others have appeared since at a rapid pace, and there are now several "systems" or "methods" in existence, whilst the number of patents is very great.

First practical application to telegraphy.
Gavey, 1791-8.
Lodge, 2117-8.
Marconi, 2884-7, 2891.
Systems in use.

11. The principal systems in use are :

Marconi.—The first practical system in the field. The first Marconi British patent was applied for on 2nd June, 1896, and accepted on 2nd July 1897.

De Forest.—American in origin; acquired in Great Britain, and it is said for all parts of the world except North America, by a British Company, the Amalgamated Radiotelegraph Company.

Smith, 55.
Davies, 556.
Gavey, 1857.
Inglefield, 1803.
Lodge, 2118.
Marconi, 2893, 3293.
Maskelyne 2527.
Muirhead, 2346-2350.
Payne, 960i

Fessenden.—American.

Lodge-Muirhead.—British, both as regards invention and ownership. First patent applied for 10th May, 1897, accepted 10th August, 1898.

Telefunken ("far-sparking").—German, an amalgamation of the systems of several different inventors (Slaby, Arco, Braun, Siemens).

Payne, 960i

Rochfort.—French.

Branly-Popp.—French.

Poulsen.—Danish, of recent invention, the rights in which for all parts of the world have also been acquired by the Amalgamated Radiotelegraph Company.

Shoemaker.—American.

Massie.—American.

12. The use of radiotelegraphy is rapidly increasing. A large number of instruments are already in operation in various parts of the world. Conflicting evidence was given as to the exact number in commercial use, but this is partly explicable by the fact that conditions are rapidly changing, and that there are in existence a number of experimental stations and other stations not open for commercial work.

Increasing uses of radiotelegraphy.
Smith, 16.
Gavey, App.
Hall, 1311-1327.
Marconi, 3046.

A relatively small proportion of the existing stations are on British territory. The greatest number are in the United States. There are also a considerable number in Italy and Germany, a few in Holland, Belgium, Spain and France, and several for non-commercial purposes in Russia.

Distribution of existing stations.
Gavey, 1854, 1858, App. No. 2022.
Smith, 21.

According to the most recent returns, it would appear that there are 186 commercial stations throughout the world, of which some 63 are Marconi and 123 are other than Marconi.

There is a preponderating number of Marconi stations in Great Britain, Italy, and Canada, but in all other parts of the world, with few exceptions, the stations are on other systems.

Gavey, 1814.
Inglefield, 2032.
Smith, 22, 298

The most important stations are those situated on the South coast of the United Kingdom, which is, owing to its geographical situation and the predominant part it plays in the maritime business of the world, the chief focus of ocean commerce.

Smith, 321.
Hall, 1699-1700.
Gavey, 1861.
Bright, 4050.

Principal uses of
radiotelegraphy.
Smith, 23.

13. The principal uses of radiotelegraphy may be placed under two main heads :

- (1) Naval and military purposes.
- (2) Commercial and mercantile purposes.

Reserving the former for discussion in a later part of this Report, the latter may be again divided into three classes—

- (a) Shore to shore communication.
- (b) Ship to ship communication.
- (c) Ship and shore communication.

Smith, 26.

Davies, 540.

The Committee have been informed that shore to shore use of radiotelegraphy has not at present reached a point where International regulation has become indispensable ; and therefore stations intended for the purpose of shore to shore communication exclusively were left outside the Convention, except in relation to the application of Articles 8 and 9, which will be referred to later.

Shore to shore
communication.
Smith, 23,
272, etc.

14. It will be convenient here, however, to define exactly what is meant by shore to shore communication. The expression includes communication from one shore station to another shore station, irrespective of whether they are in the same or in different countries, or whether the sea is crossed in such communication. Thus a shore to shore communication would be one from (1) Dover to Brest, or (2) London to Paris (that is, from one territory to another across the sea), or from (3) Paris to Berlin (similarly but not crossing sea), or (4) from London to York (within the same territory).

It embraces, in point of fact, such communication as would take the place of telegraphy by land wires or submarine cables, or supplies communication where the ordinary methods would be inapplicable, either on financial or physical grounds. Thus the Lodge-Muirhead communication between Burmah and the Andaman Islands, where the traffic is not enough to pay for a cable, is an instance of wireless telegraphy of this category.

Smith, 23.

It should also be specially noted that shore to shore communication includes communication with lightships, or other ships permanently moored, lighthouses and outlying islands. A number of installations of this kind have already been established, on the British coasts and elsewhere.

Ship to ship
communication.
Daniell, 702.
Gavey, 1908-14,
1935.
Smith, 423.

Ship and shore
communication.
Smith, 23.
Daniell, 828.

15. The expression ship to ship communication is self-explanatory. The question of the application of the Convention to such communication will be dealt with hereafter.

16. The expression ship and shore communication means communication between a coast station and a ship at sea. "Coast station" is defined as any radiotelegraph station which is established on land or on board a ship permanently moored, and which is used for the exchange of correspondence with ships at sea. The coast station may be actually on the coast, as at Poldhu, or miles inland. Thus, communication from Nauener near Berlin to a vessel up Channel would fall within this definition.

Radiotelegraphy
versus wire
telegraphy.
Smith, 24.
Bright, 4033,
4076.

17. In the absence of other invention, there is at present small likelihood of wireless telegraphy competing commercially with ordinary telegraphy over land wires, or superseding the use of cables. But, if transmarine radiotelegraphy could be effected with certainty and reasonable speed, there would be an extensive field for its employment as a subsidiary method to cable communication.

For military and naval purposes, the importance of the invention cannot be overestimated, especially to Great Britain in time of war, when the cables might be cut. (See par. 44.)

Use of radiotele-
graphy ship to
shore.
Smith, 27.

18. The principal application of wireless telegraphy has been in the provision of an entirely new facility for communicating between shore and ship, and *vice versa*. It is the rapid development of this kind of radiotelegraphy which has rendered International Regulation desirable.

Ship and shore communication may be divided into two classes or three different categories :—

1. Maritime intelligence.
2. Sea telegraphy.
 - (a) News messages.
 - (b) Private and commercial messages.

19. Under the first heading would fall messages relating to the service or safety of the ship, such as reports of a ship's position, time of arrival in port, directions for berthing and docking, or as to cargo, etc.; information regarding navigation, such as icebergs, derelicts, approaching storms; and in the case of a stranding or collision, fire, or other casualty, the summoning of assistance. It would include messages from a port where there is infectious disease to warn off an approaching steamer, thus avoiding the necessity of her remaining in quarantine at the next port of call. This class of message may not be numerous, but is of the greatest importance. When the utility of wireless telegraphy as a protection against maritime disasters is more realised, a larger number of vessels will, doubtless, carry wireless apparatus. Maritime intelligence
Inglefield, 2041.
Phillips, 2839.

20. Sea telegraphy embraces (a) news services, such as the regular service of news sent out from a high-power station such as Poldhu for the benefit of ships crossing the Atlantic. But the most important are (b) private messages from or to persons on board ships, especially the large transatlantic liners. The greater part of this traffic is from ship to shore, about 20 telegrams passing in this way to one from shore to ship. A service which provides for this development has the best chance of being remunerative. It is mainly on board the large liners carrying a considerable number of passengers that wireless telegraphy has so far been installed, apart from naval use. Sea telegraphy.
(a) News service.
Phillips, 2839.
Smith, 27 (b)
Private messages.
Smith, 27, 3856.
Hall, 1311.

POLITICAL HISTORY.

21. The progress of the invention was carefully watched by the British Government from its first entry into the field of practical application. When Mr. Marconi first came to England he was introduced to Sir William Preece, then Engineer-in-Chief at the Post Office, and experiments were conducted on Salisbury Plain, at the General Post Office, and in South Wales in 1896-7. Development of the invention.
Smith, 29.
Gavey, 1793-4.
Preece, 3319.

The early experiments of Mr. Marconi were made with the assistance and co-operation of the Post Office, and Mr. Marconi cordially acknowledged the good relations which existed between himself and that Department. Heaton, 2741.
Lodge, 2117.

By the year 1899 the Marconi system had reached a point of development where the Admiralty thought it desirable to obtain sets of the apparatus for experiments. In 1901 an agreement of a limited character was entered into between the Admiralty and the Company which had acquired the Marconi patents, for the supply of Marconi apparatus for naval use. Marconi, 2885-7,
2890, 3080, 3082-5.
Admiralty agreements.
Daniell, 601.

In July, 1903, the Admiralty entered into a further and more complete agreement with the Marconi Wireless Telegraph Company. The text of this agreement was laid before Parliament and will be found in the Appendices. The agreement, which covers a period of 11 years (expiring in 1914), grants the Admiralty the right to the full use of the Marconi patents then existing and future, and to the exclusive use of a long-distance station for twenty minutes every day, to priority over all other messages, to the supply of all apparatus at current prices, and to information concerning any improvement in apparatus or in methods of signalling. In consideration for this the Admiralty paid the Company £20,000, with £1,600 royalty for thirty-two existing installations, and £5,000 a year for the duration of the agreement.

The Committee have been informed by one of the Admiralty witnesses that, since 1905, no new idea or technical advice has been offered to the Admiralty in accordance with this agreement, and that the Navy is not dependent for further developments in wireless telegraphy upon the Marconi Company. Payne, 961, 971.

22. Lloyd's has some 1,300 agents and sub-agents who, in addition to other important duties as representatives of that Corporation, are specially charged to transmit agreement.

Inglefield, 2030-1, 2033, 2041.
Marconi, 3288.
Smith, 30-1.
Hall, 1261.

at once all the latest maritime intelligence from their respective districts. As the principal agency for collecting maritime intelligence, Lloyd's was necessarily interested in an invention intended to facilitate communication with ships at sea; and an agreement was signed in September, 1901, expiring 1915, between Lloyd's and the Marconi International Marine Communication Company (an offshoot of the Marconi Wireless Telegraph Company), under which Lloyd's have the right to use Marconi apparatus at all their stations, and engage to use no other, and also not to communicate with ships using any other system, or to permit the use of any other system at or in connection with their signal stations, the only important exception being the United States of America. Lloyd's entered into their agreement because, at the time, the Marconi system was the only one being worked on a commercial basis.

Inglefield, 2039,
2052-61.

The Committee have been informed that the agreement is a complicated one and has given rise to considerable differences of opinion and litigation, as to its construction, between the parties concerned. As the result of litigation, the agreement has been modified in several respects, but all the difficulties have not been removed, and further litigation is pending.

Inglefield, 2034-8.
Smith, 31.

Inglefield, 2041-2.
Maskelyne, 2567.
Philipps, 2839,
2844.
Smith, 34.

The agreement is of importance because of the restrictions which it imposes on Lloyd's against employing or communicating with any other system than the Marconi system. An instance was given when the general public interests were endangered and human life jeopardised owing to the refusal of the Marconi Company to allow intercommunication. In 1906 the United States steamer "Lebanon" was engaged to destroy a derelict, said to be endangering vessels crossing the North Atlantic. While searching for the derelict, the "Lebanon" got into wireless communication with the Marconi-equipped Red Star steamer "Vaderland," in the hope of getting information. The "Vaderland," however, declined to communicate.

Inglefield, 2044.
Johnson, 1208-10,
1225-7.

Lloyd's have also been unable to establish wireless telegraph stations at various British Colonies (Jamaica, Ceylon, Barbadoes, St. Helena, Perim, Straits Settlements, Mauritius), because these Colonial Governments make it a condition of their licences that intercommunication shall be permitted, if required by an International Convention, a condition with which Lloyd's are at present precluded from complying by their agreement with the Marconi Company.

Preliminary
Berlin Conference
1903.
Smith, 37.

23. By the year 1903 the increasing use of wireless telegraphy for maritime purposes had raised questions of International interest, and it had become evident that on many points regarding the interchange of messages, International agreement would soon be urgently required. A Conference met at Berlin in August, 1903, on the invitation of the German Government. Great Britain was represented at the Conference by delegates from the Admiralty, War Office, and Post Office.

The outcome of the Conference was that all the great Powers, with the exception of Great Britain and Italy, agreed to certain proposals to be considered at a subsequent Conference for the International regulation of wireless telegraphy, including the obligatory exchange of messages between different systems.

Instructions to
British Delegation.
Bethell, 3567.

Smith, 38.

24. The British delegates had been instructed to maintain an attitude of reserve owing to the position in which wireless telegraphy was at that time placed in the United Kingdom, the fact being that in the then state of the law the Government had not that complete control over wireless telegraphy which would have enabled them to enforce the provisions of the Convention. There was no legislation applying to wireless telegraphy; and wireless telegraphy, being a form of telegraphy within the definition of the Telegraph Acts, came within the monopoly of the Postmaster-General only so far as concerned communications within the United Kingdom or its territorial waters. Whilst, therefore, the Postmaster-General was under the existing law able to impose conditions upon the exercise of wireless telegraphy inside the territorial belt, he had no control whatever over communications from the United Kingdom to ships or stations outside territorial waters, or in the reverse direction. Consequently the Postmaster-General would not have been able to impose the conditions of the International Convention over communications between shore and ships, or *vice versa*, within the meaning of the definitions already explained. It was open to anyone to put up a wireless station, provided it sent or received messages beyond the territorial waters.

See pars. 14-16,
ante.
Marconi, 133.

The conclusions of this Conference were set out in the *Procès-verbaux* and Protocol Final (Minutes of the Conference and final Protocol), of the Preliminary International Conference of 1903, which were laid before Parliament. Smith, 40-1.

25. The Protocol consisted of a draft proposed International agreement, to form the basis of a Convention to be discussed at a subsequent Conference, the Conference of 1903 having been regarded as merely a preliminary Conference. Action taken before the second Conference of 1906. Smith, 41.

It therefore became necessary for the British Government to consider the attitude which should be assumed with regard to these proposals, and, in particular, with regard to the proposal for universal compulsory intercommunication between different systems, and this formed the chief Article of the Protocol.

The matter was fully discussed in 1903-4 between the departments concerned, and, in particular, between the Admiralty, the Board of Trade, the Post Office, and the Cables Landing Rights Committee (a Committee on which the afore-mentioned Departments as well as the Foreign Office, Colonial Office, War Office, India Office, and Treasury, are represented under the presidency of the Parliamentary Secretary to the Board of Trade). After prolonged consideration it was finally agreed, at a meeting held at the Admiralty on the 24th February, 1904, between the Ministers of the departments principally concerned and their advisers: "That the principle of compulsory intercommunication should be accepted, provided that such regulations should be drawn up, together with provision for their enforcement, as would, in the opinion of the Admiralty, be adequate for the purpose of effective control over the general transmission of messages to or from stations in British territory, and of preventing interference and confusion." The expression "compulsory intercommunication" meant that no ship or shore station should be at liberty to refuse a communication from another station solely on the ground that the system of wireless telegraphy employed was a different one. This decision formed the basis of proposals laid before the Cabinet in March, 1904, for legislation to secure to the Government complete control of wireless telegraphy, more especially for naval considerations, but including also the power of enforcing the provisions of an International Convention. A Bill was introduced in the Session of 1904, and while it was before the House an agreement was made between the Post Office and the Marconi Companies, to which reference will be made later. Bethell, 3667. Daniell, 507-8. Smith, 42. Smith, 48.

26. The Wireless Telegraph Act (which was passed in 1904 for two years only, and which was renewed in 1906, without modification, for a further period of three years) prohibits the installation or working of wireless telegraph apparatus in the United Kingdom or on board British ships without a licence from the Postmaster-General. Its principal objects were, by regulating wireless telegraphy, to make it more useful for purposes of defence and general communication, and to provide against the growth of a monopoly in the hands of any one company. The Memorandum which was laid before the House in explanation of the Bill stated that the necessity of legislation depended, in the first place on the extreme importance, from the naval point of view, of giving the Government control over all wireless stations in time of war or emergency, and, secondly, on the desirability of placing the Government in a position to enter into an agreement on the subject with other countries, if it should be found expedient to do so. Wireless Telegraph Act. Smith, 49. Smith, 47.

27. The Second Conference, after several postponements, was summoned for the autumn of 1906, and the Instructions to be given to the British delegates were settled after full discussion between the Departments and Ministers specially concerned. In relation to the question of intercommunication, the Instructions were based on the decision of 24th February 1904, with the addition, to which great importance was attached by the Admiralty, that discretion should be reserved to the Government to exempt particular coast stations from the obligation to intercommunicate. The Instructions were fully concurred in by the Admiralty, War Office, Post Office, Colonial Office, India Office, Treasury, and Board of Trade. It may be noted that the Admiralty delegates were specially empowered to judge, independently of their colleagues, whether the conditions contained in the Instructions were satisfied; and they were empowered, in the event of any difference of opinion arising between them and the other delegates, to refer the question to the decision of the Government. No difference of opinion did arise between the delegates. Smith, 78. Bethell, 3671-2. Smith, 80.

Second Conference (1906).
Smith, 78-87.

28. The second Conference met early in October, 1906, at Berlin, and sat for about a month. The proceedings were recorded as usual in the form of *Procès-verbaux* or Minutes.

The documents signed at Berlin on the 3rd November, 1906, consisted of :—

- (I.) The Convention.
- (II.) The Additional Undertaking.
- (III.) The Final Protocol.
- (IV.) The Service Regulations.

and are set out in the Appendices of this Report.

The above documents were signed by Great Britain except the Additional Undertaking, as explained in paragraph 15.

These several documents are to be construed as one, as regards their effective operation.

Delegates at the Conferences.
Smith, 81-3.

29. It may be interesting to set down the names of the British delegates at both Conferences.

Name.	At the Conference of—
Mr. H. Babington Smith, C.B., C.S.I., Secretary of the General Post Office	1906
Sir John C. (then Mr.) Lamb, late Second Secretary of the General Post Office	1903
Mr. J. Gavey, C.B., Engineer-in-Chief of the Post Office - - - - -	1903 and 1906
Captain H. L. Heath, R.N., Admiralty - - - - -	1903
Commander R. Payne, R.N., Admiralty - - - - -	1903
Captain the Hon. A. E. Bethell, C.M.G., R.N., Assistant Director of Naval Ordnance.	1906
Mr. R. J. Mackay, Principal Clerk in the Post Office - - - - -	1903 and 1906
Col. J. F. Daniell, R.M.L.I., Assistant Director of Naval Intelligence - -	1906
Lieut. F. G. Loring, R.N. - - - - -	1906
Col. R. L. Hippisley, C.B., R.E., - - - - -	1903 and 1906
Col. F. J. Davies, Assistant Director of Military Operations - - - - -	1906

THE CONVENTION.

Objects of Convention under six heads.
Smith, 105.

30. The primary object of the Convention is to facilitate ship and shore communication, and its main provisions may be classified under the following heads : —

- (i) The acceptance and transmission of telegrams.
- (ii) The adoption of uniform rules of working.
- (iii) The provision of the means of collecting charges and settling accounts between the different countries.
- (iv) Arrangements for the publication of all information necessary for intercommunication.
- (v) Rules to prevent interference and confusion in working, with adequate provisions for their enforcement.
- (vi) Provision that, with certain exceptions, intercommunication must not be refused on account of differences in the systems of wireless telegraphy employed.

A proposal was brought forward by the representatives of the United States to extend the scope of the Convention so as to include ship to ship communication. The British Delegation opposed this suggestion, mainly on the ground that the question had not been considered by the Preliminary Conference of 1903, and that the time was not ripe for international regulation. An "Additional Undertaking" was entered into by certain Powers rendering it obligatory on ships belonging to those Powers to intercommunicate without regard to differences of system, and providing that non-signatory Powers (including Great Britain) might at any time adhere, by adopting certain procedure.

Evidence was given to show that compulsory ship to ship communication would be a distinct advantage from a commercial point of view. Although ship to ship communication is not rendered obligatory by the Convention, yet interference would be avoided, because a ship's licence to carry wireless telegraph apparatus would compel her to obey all the regulations of the Convention.

By the application of Articles 1 and 2 of the Telegraphic Convention of St. Petersburg, certain general obligations, regarding the acceptance and transmission of telegrams, are imposed on all countries. The effect of these two Articles is that all countries adhering to the Radiotelegraphic Convention, and all ships of adhering countries which are open to general public correspondence, are required to accept and forward the correspondence of all persons alike. It is a general obligation of freedom of correspondence for the public, the adhering countries undertaking to adopt all necessary measures for securing secrecy and the prompt dispatch of messages.

Article 14 of the Convention and Article IX. of the Regulations deal with a case where a radiotelegram is transmitted in part through stations or over the wires of non-adhering countries. The object of the British delegates in dealing with these Articles was to secure, as far as possible, freedom of transmission between an adhering and a non-adhering country. Great Britain, owing to her Colonies, had a special interest in this. Each Colony is at liberty to adhere or not as she thinks fit, and the regulations, as originally drafted, would have left it open to other countries to refuse the further transmission of a radiotelegram received from a ship at a coast station of a non-adhering Colony and sent on through the United Kingdom. This would have placed Great Britain in the invidious position of being unable to secure further transmission of a telegram coming from one of her own Colonies. Further, under the draft proposals a telegram originating from a non-adhering country might have been penalised in certain cases by double rates. The above boycotting and penalising proposals were, however, withdrawn from the draft Convention, at the instance of the British delegates.

31. The rules of working laid down coincide, so far as circumstances permit, with those of the Telegraph Convention. They embrace the manner of calling from one station to another, of answering calls, the order and nature of the service indications, the signals to be used, the form of telegrams, &c. If this were not done, different countries would adopt different signals and methods, and confusion would result.

The rules of working, in relation to the actual exchange of telegrams between ship and shore stations, or *vice versa*, are contained in Articles XVIII. to XXX. of the Regulations. As a general rule the ship station calls the shore station, and not the shore station the ship. The ship station must avoid breaking in upon communications already in progress, and if the call is unsuccessful, it must not be renewed at too short an interval. An unsuccessful call, after being thrice repeated, must not be renewed till after an interval of half-an-hour, except, of course, in cases of distress (Article XXI.) The shore station decides the order of priority (Article XXIII.) for which purpose the ship furnishes the necessary particulars as to course, speed, &c., specified in Article XXII. of the Regulations. This is the procedure at present in use in the Marconi stations, and has been found to work very well in practice.

Article XXX. of the Regulations provides that ships should communicate with the nearest coast station. This provision is of considerable value to Great Britain, having regard to the crowded condition of the Channel, to the number of

stations already existing on the South Coast and their proximity to the main lines of traffic in the Channel; whilst throughout the world it secures to British possessions the enjoyment of the advantages arising naturally from their geographical position.

(iii.) Charges and accounts.
Smith, 131.

The Regulations regarding Charges and Accounts are comprised in Article X. of the Convention, and Articles XII., XIII., XIV., XXXV., XXXVI. of the Regulations. The principal object secured is that the whole charge should, in all cases, be collected from the sender, wherever the radiotelegram may be handed in, and a system of accounting has been framed which renders this possible.

(iv.) Interchange of information.
Smith, 134.

Under Article IV. of the Regulations a list is prepared and circulated by the agency of the International Bureau at Berne, furnishing particulars regarding each station, such as name, nationality, geographical position, call signal, normal range, wave length, nature of service performed by the station (*i.e.*, general public correspondence, restricted public correspondence, long distance public correspondence—private or special correspondence), hours of service, &c.

Daniell, 674-5.
Gavey, 1921-3.

The International Bureau will be merely a branch of the Bureau of the International Telegraph Union, situated at Berne, of which the Director is Swiss. It has no initiative or executive power, and holds a strictly subordinate position, its functions being practically confined to the collection and circulation of information.

Smith, 137.

In this connection it is well to observe that the Regulations (Article IV. (2)) permit—but do not require—the publication of information regarding naval stations or other stations not open for public correspondence. When it is to the interest of ships of war or naval stations to communicate with other ships and stations, they are entitled to do so.

(v.) Prevention of interference and confusion.
Smith, 141.

Apart from the Articles and Regulations already referred to, which are in many instances adaptations of the Telegraph Convention, special provisions were required to meet the circumstances peculiar to radiotelegraphy, to prevent interference and confusion.

Gavey, 1811
Daniell, 664, 672.

(a) Excess of power.

The range of effect, and therefore the range of possible disturbance, is greater, the more the energy used. It was, therefore, desirable to lay down that stations should not use a greater amount of energy than was necessary for the particular purpose in hand. Article XXVIII. of the Regulations provides that “all stations are bound to exchange traffic with the minimum expenditure of energy required for obtaining effective communication.” A specific limitation of the power to be used by ships is contained in Article VI. of the Regulations

(b) Uniformity in methods of working traffic; use of International Code.

Smith, 141.

The Rules described above under (2) secure uniformity of working and contribute largely to the prevention of interference and confusion, especially by the regulation of the order in which ships must communicate.

Smith, 120.

The International Code is intended to prevent confusion arising from operators of different nationality not knowing each other's language; in such cases the International Code is to be used.

(c) Efficiency of apparatus and operators on ships.

Daniell 666.
Gavey, 1811.
Payne, 975.
Loring, 1125.

Inefficient apparatus or operators on board ships would naturally be a fruitful source of confusion. To prevent this, Article VI. of the Regulations lays down that every ship and shore station must be licensed by the Government to whose authority the station is subject, and that no ship station shall be licensed unless the system used is a syntonized system, capable of transmitting and receiving at a reasonable speed (12 words a minute the minimum), and not using an excessive amount of power. Further, every ship fitted with wireless apparatus must also have a telegraphist licensed by the Government, to whose authority the ship is subject; and in order to allow him to be licensed he must have a competent knowledge of the adjustment of the apparatus, be able to transmit

and read by sound, at a speed of at least 20 words a minute, and must have a knowledge of the Regulations applicable to the exchange of radiotelegraphic traffic. In addition, the certificate must testify that the Government has bound the telegraphist to an obligation of preserving the secrecy of correspondence.

(d) Control of operators.

Article V. of the Regulations prohibits useless and superfluous communications between operators. Smith, 141.
Loring, 1126.

Article VII. prescribes the course to be taken in cases of breach of the regulations. An administration which has information of a breach of the Convention or Regulations, committed at a station which it has authorised, is required, after inquiry, to take the necessary disciplinary steps, and, if need be, to withdraw the certificate of the operator or the ship. Smith, 153.
Daniell, 6667.

(e) Appropriation of specific wave-lengths.

Articles II. and III. of the Regulations specify two wave-lengths of 300 and 600 metres for the service of general public correspondence. These lengths are sufficiently wide apart to admit of the establishment of shore stations within a reasonable distance of one another, and yet not likely to interfere with each other, if fitted with the most modern apparatus. The normal wave-length on board ship is to be 300 metres, so that any ship may at all times place itself in communication with any other ship within range. Wave lengths between 600 and 1,600 metres are excluded from commercial use and are entirely reserved for Government purposes, as explained in par 44 (h). Smith, 145.
Gavey, 1806.
Payne, 955-6

(f) General obligation not to interfere.

Besides the above special regulations, Article 8 of the Convention requires that the working of radiotelegraph stations shall be organised, as far as possible, in such a manner as not to interfere with the working of other stations of the kind. This general obligation extends to all wireless telegraph stations without exception, and not merely to the commercial stations to which the Convention as a whole applies. Smith, 141.
Daniell, 643.

32. The Marconi Company urged before the Committee that they were able to secure a strict discipline under their own stringent regulations, and that, under the proposed Convention, a loose, dilatory and cumbrous system of International control would be substituted. To this it was replied that the ships in question would for the most part belong to a limited number of maritime countries, all of which would be interested in maintaining an efficient service, and that the necessary communications would pass directly between the administrations concerned, without passing through a diplomatic channel. There does not appear, therefore, to be any reason why unreasonable delay should be anticipated; and, in any case, Article VII. of the Regulations provides that, in the event of repeated breaches of the Regulations by the same ship, the shore stations may be instructed to refuse communication. In case of difference between two adhering countries, there is an appeal to arbitration, but meanwhile the ship may be black-listed. In regard to shore stations, they are within direct control of their respective Governments, and the same difficulties do not arise as in the case of ships, which, being migratory, are a more dangerous source of confusion. Enforcement of regulations.
Hall, 1373-77,
1613.
Daniell, 667.
Gavey, 1812.
Marconi, 3127.

Much has been made of the possibility that an irresponsible ship may cause confusion and interference, in defiance of the Regulations. But this could happen under the present circumstances, with this material difference, that, if the Convention were in force, the Government of every ratifying country would be bound, in the event of such a violation, to withhold a licence. Daniell, 667-684.
Gavey, 1799-1800.
Lodge, 2290.

It may be pointed out in this connection that the organisation provided by the Convention is international only so far as it binds each of the Signatory Powers to lay down and enforce specified regulations for the control of wireless stations on their territory and in their ships, so as to facilitate intercommunication and to avoid as far as possible confusion and interference. Thus, though communications from country to country will be required for bringing to notice breaches of regulations, the machinery for enforcing the regulations, in each case, is national and not international. Smith, 152.

Hall, 1354,
1611-12.
Maskelyne
2646.

The Committee elicited that the Marconi Company maintained their discipline by a system of bonus to their operators. They are of opinion that, other things being equal, a bonus system is a less satisfactory method of securing discipline than a system of penalty, internationally directed, and nationally controlled.

Marconi
objections.
Marconi, 2895-
9, 2908, 2915,
2921, 2957.
Fleming, App.

33. A strong contention was raised by the witnesses who appeared on behalf of the Marconi Company, and by Mr. Marconi himself, that, whereas the Convention specifies wave lengths for particular purposes, other essential factors, namely, "Amplitude" and "Damping" have been ignored, and that therefore the treatment of the matter had been incomplete and unscientific.

Types of waves.
Gavey, 1950-4.
Payne, 3637.

The Committee, accordingly, have endeavoured to examine closely into this complaint and to arrive at some conclusion as to the different types of waves which the above terms describe. With this object, the Committee had an opportunity of witnessing a demonstration at the Post Office, where these different types of waves were illustrated by Mr. Gavey.

Gavey (demon-
stration).
Marconi, 2896,
2907.

Amplitude represents the vertical height of the wave; or the potential which the wave peaks reach to at each oscillation. It is the size of the rise and fall.

Damping represents the dying away of the wave train.

Gavey (demon-
stration)
Lodge, 2121.

(a) A highly damped train is one where the train dies away in two or three oscillations.

(b) A moderately or feebly-damped wave train is one that persists for ten, fifteen, or twenty oscillations.

(c) An undamped or continuous wave is one that persists and maintains a (more or less) continuous series of uniform oscillations.

The highly
damped wave.
Lodge, 2121,
2183, 2220.
Marconi, 2888-9.

34. The highly damped wave (a) was that used when Mr. Marconi first introduced his invention, wherein no attempt was made at tuning, and is the type which Sir Oliver Lodge described as the "snap" or "whip-crack" system. This method enables considerable distances to be reached without discrimination or selection, and gives the largest amount of interference with partially tuned systems—that is to say, the highly damped wave interferes more with partially tuned systems than the partially damped or continuous wave would do, and is practically prohibited by the Convention for use between ship and shore.

The feebly
damped wave.
Marconi, 2917-8,
3008-10.
Gavey.

35. As regards type (b). Article VI. of the Regulations specifies the use of a syntonized system on ships, which implies the employment of a moderately or feebly damped wave. Article XXVIII. limits the amplitude, not by any attempt to define the height of the wave, but by limiting the power to be used to the minimum necessary to establish communication, so as to avoid interference with neighbouring stations.

Payne, 972.
Gavey, 1811

Article VI. (c) of the Regulations provides: The power imparted to the radio-telegraphic apparatus must not, in normal circumstances, exceed one kilowatt. Power in excess of one kilowatt may be used if the ship finds it necessary to exchange messages at a distance of more than 300 kilometres from the nearest coast station, or if, by reason of intervening obstacles, communication can only be effected by an increase of power.

The undamped
wave.
Maskelyne,
2551-2.
Fleming, App

36. Undamped waves (c), also called continuous or persistent waves, are produced by various methods, one of which is known as the arc system, the two former types of waves being variations of the spark system. This third type of the undamped wave belongs to a system which, according to the impression derived by the Committee from witnesses who spoke on it, is still in its infancy, but which may prove an advance on the spark system. No evidence was given to show that a single station on this system is yet in commercial operation.

Provisions for
regulations.
Preece, 3411-2.
Smith, 3864, etc.

37. The Conference refrained from dealing in a more detailed manner with questions relating to amplitude and damping, because they considered at such an

early stage it would have been injudicious to have imposed restrictions which might conceivably have impeded the progress of the science. Had the contention of the Marconi Company been anticipated, it appears to the Committee that the Company might then have had greater reason for objection, in that embarrassing limitations might have been inadvertently introduced.

38. In relation to the question of wave lengths, the Marconi Company raised the double objection, first, to the naval appropriation of wave lengths between 600 and 1,600 metres, secondly, to the commercial use being restricted to 300 and 600 metres. Marconi objections.
Marconi, 2969.
2993.

(a) With reference to the first objection, it is sufficient to state that the naval delegates were unanimous on the question of the reservation of these wave lengths, to enable the respective navies to carry on wireless telegraphy with the least interference. The claims of a commercial company, even if well founded must give way to considerations of the highest National importance. Naval representatives
unanimous.
Daniell, 654.
Bethall, 3735.

It is clear that, whether there be a Convention or not, it will obviously be the duty of the Government of any nation to specify such wave lengths to be used at each station as will safeguard all national interests, and to prohibit the use at commercial stations of wave lengths which it is intended to reserve for naval purposes.

(b) As regards the second objection it is not the fact that only two wave lengths are available for commercial use. Article II. of the Regulations provides :—

Two wave lengths, one of 300 and the other of 600 metres, are allowed for general public correspondence . . . nevertheless each Government may authorise the use at any coast station of other wave lengths for the purpose of providing a long distance service, or a service other than that of general public correspondence, established in accordance with the provisions of the Convention, on condition that these wave lengths do not exceed 600 metres or do exceed 1,600 metres. Commercial
wave length not
restricted to two.

Therefore at "exempted" stations and at stations with a restricted public service any wave lengths except those between 600 and 1,600 metres may be authorised by the respective Governments.

Evidence was given to satisfy the Committee that the prescribed wave lengths of 300 and 600 metres, taken in connection with the exemptions and restrictions provided for in the Convention and Regulations, afforded sufficient elasticity for commercial purposes. Maskelyne, 2598.
2607.
Payne, 955.
Smith, 3872.

39. The Committee desire to lay emphasis on the following position. Marconi witnesses were closely cross-examined on the alleged oversight in not including provisions regarding amplitude; and, on it being shown that the provisions above set out met every contingency, then raised the objection that these provisions would not be effective, and that Governments generally would not feel inclined to encourage improvements. That is to say, the Governments, having internationally recognised the existing systems which admit of intercommunication, would discourage new and improved systems which would not at the outset intercommunicate; that control in itself would stereotype existing systems and sterilise invention; that the British Government, for example, would hamper improvements in wireless telegraphy, by pedantically adhering to conventional regulations which took no account of progress in invention. Marconi, 2912-29.
Alleged obstacles
to invention.
Marconi, 2946-8.
Fleming, App.

The Convention deals with things as they are, and regulates wireless telegraphy as it stands. It leaves the door open for improvements, and there is no reason for assuming that any Government would willingly embarrass science by artificial obstacles. The British Government itself—indeed, every Government—has the greatest interest in the development of this art, and naturally would be concerned in seeing it advance towards perfection.

40. Intercommunication between different systems.

The Committee have had to give close attention to this point, which on the evidence proved to be controversial and, in many respects, the most important arising under the Convention. The question arises in consequence of the policy Intercommunica-
tion between
different systems.
Hall, 1350-68,
1599-1613.

pursued by the Marconi Company of refusing to allow any ship or shore station fitted with Marconi apparatus to enter into communication with a station of any other system. The reason for this policy put forward by the Marconi witnesses was that by unity of control they hoped to secure more effectually the observance of their rules and the avoidance of confusion and interference; but evidence was also given by other witnesses to show that in their belief they had in view the establishment, as far as possible, of a general monopoly for their system—since being in possession of shore stations at many of the most important points of the coast, they hoped to compel ships to adopt the Marconi system in order to communicate with those stations, and other shore stations to adopt the same system in order to communicate with the ships.

Smith, 290.
Gavey, 1894.
Maskelyne, 256.

Smith, 160

Under Article 3 of the Convention coast and ship commercial stations are required to exchange radiotelegrams, reciprocally, without distinction of the radiotelegraphic system adopted by the station. For example, a Marconi shore station would be deprived of its present power to refuse to interchange messages with a ship fitted with the De Forest or Lodge-Muirhead apparatus merely because the apparatus was not Marconi apparatus, and conversely a ship equipped with Marconi apparatus would be required to interchange messages with a shore station, irrespective of the apparatus with which it was furnished.

Gavey, 1801-3.
Lodge, 2135,
2138-9.

Payne, 1954.
Gavey, 1802.
Muirhead, 2410,
2418.

41. It was generally admitted that all existing spark systems intercommunicate readily, the fact being that the so-called systems are really different methods of one system.

Intercommunica-
tion between arc
and spark
systems.

A considerable doubt arises, however, in regard to the present possibility of commanding intercommunication between the arc (or continuous wave) and the spark systems.

The doubt is due to the fact that no arc systems are in operation as commercial stations, and, therefore, it has been difficult to prove or disprove the possibility of intercommunication in actual practice.

Mr. Maskelyne stated that he believes it can be done, but, (as he describes it) only by elevating the inferior spark system to the standard of the arc system, or by degrading the arc system apparatus to the level of the spark system. This he deprecates, contending that the superiority of the former will at no distant date make it the prevalent system throughout the world.

Lodge, 2136.

Sir Oliver Lodge stated that by a careful system of syntonization—by the superior perfection to which he has brought the tuning of his method—all difficulties in the way of intercommunication can be removed.

Marconi, 2936, etc.
Fleming, App.

Mr. Marconi and Professor Fleming, however, question whether, for practical purposes, it can be done at all.

Preece, 3487.
Payne, 3637.

Sir William Preece, on the contrary, asserted that there would be no difficulty in securing non-interference by syntonization.

Commander Payne, the Admiralty wireless expert, speaking from actual experience, claimed that he can show there is no physical difficulty in making an undamped wave system, which produces greater selectivity, intercommunicate with a moderately damped spark system, and that, as apparatus could easily be tuned, without suffering depreciation, to make the damped and partially damped wave work together satisfactorily, so it might equally be anticipated that the partially damped wave may be made to work with the undamped wave.

The Committee do not feel themselves competent to draw any deductions from the conflicting views of such distinguished scientists. They must, however, point out that the Convention clearly provides by Article 4 of the Final Protocol for the introduction of new systems, even if they cannot intercommunicate with existing systems. The terms of this Article are as follows:—

“It is understood that, in order that scientific progress may not be impeded the provisions of Article 3 of the Convention do not prevent the possible use of a system of radiotelegraphy incapable of communicating with other systems, provided always that this incapacity is due to the specific nature of the system, and is not the result of arrangements adapted solely with a view to prevent intercommunication.”

In regard to the general question of the development of wireless telegraphy, the Convention is intended to oppose no obstacle to the experimental and practical development of all new inventions, and, if the continuous wave system is proved to be superior to any of the spark systems, it will inevitably displace the latter and become universal. In the meantime the Convention provides for present intercommunication without intended prejudice or detriment to the development of the arc system or any other that may be devised. Indeed, such systems will enjoy the advantages and protection of the Convention.

Scientific
Development.
Smith, 3865, etc.

Further, under Article I. of the Regulations, it is laid down that the choice of apparatus is unrestricted and the installations should keep pace, as far as possible, with scientific and technical progress.

It may be added that the witnesses representing systems other than the Marconi system expressed themselves strongly in favour of the ratification of the Convention, on the twofold ground that under existing conditions the adoption and extension of their systems, which they claim to be more perfect, were greatly hampered; and that under the Convention, the free competition ensuing would ensure full opportunity for the development of improved systems of wireless telegraphy.

Maskelyne,
2567-9.
Lodge, 2277-9,
2299.

42. Under Article 22 of the Convention it is laid down that any contracting party may withdraw from the Convention by giving a year's notice, but this in no way disturbs the Convention as regards the remaining parties. Assuming it is ratified, the Convention will come into operation on and from the 1st of July, 1908, and subject to the foregoing provision will remain in force for an indefinite period.

Adhesion and
denunciation
of the
Convention.
Smith, 180.
Payne, 965.

IMPERIAL INTERESTS.

43. An important provision was inserted at the instance of the British delegates (in Article 5 of the Final Protocol) reserving to India and all the Colonies perfect freedom of action, and making it clear that (before or after it comes into operation) each may separately adhere to or withdraw from the Convention as they think fit, independently of the mother country or any other Colony. A Crown Colony need not adhere, if the Convention is considered detrimental to its interests. India and the self-governing Colonies were consulted generally as to the draft Convention, but no wish was expressed by any of them to be represented directly at the Conference.

Colonial and
Indian interests.
Johnson, 1211.
Smith, 182.

Johnson, 1198.
Heaton, 2721.

The correspondence with the self-governing Colonies was laid before the Committee, and is included in the Appendices.

Objection has been raised in evidence to the proportion of votes at future Conferences to be allotted to Great Britain on behalf of her Colonies.

Voting at
Conferences.
Hall, 1894, etc.

The question of voting power was approached by the Conference from the point of view of the two existing precedents, viz., the Postal and Telegraph Conventions. Two different systems are in force in the case of these two Conventions. Under the Telegraph Convention each country may claim a vote for any Colony or Dependency which adheres, and which possesses a separate telegraph administration. This principle has the drawback that it enables votes to be claimed on behalf of Colonies whose size and position are not of sufficient importance to justify a vote.

Johnson, 1212-24.
Smith, 365 75.

Under the Postal Convention the votes are assigned by name to those Colonies which the Conference as a whole considers of sufficient importance to claim a vote. The latter of these alternatives was adopted by the Conference. Great Britain proposed a maximum of seven votes for any one country with its colonies, but the Conference ultimately decided on a maximum of six, the number at present exercised by Great Britain under the Postal Union.

Johnson, 1238
Smith, 3656.

The Colonial votes will be allotted at the next Conference, which will meet in London in 1911, and a special provision was secured by the British delegates so that the Colonial representatives, then admitted, will be enabled to deliberate and vote at that Conference. Owing to the importance of her Colonies, there should be no difficulty in Great Britain being able to sustain her claim for the maximum number of votes.

This principle of voting has been shown to work satisfactorily in the case of the Postal Convention, and, in view of the moral influence Great Britain can always bring to bear upon International Conferences, there should be no apprehension of a deadlock, or of any adverse vote being arbitrarily cast against her interests. In the

unlikely event of such an occurrence Article 22 of the Convention can be put into force by the withdrawal of Great Britain from the Convention at any time with a year's notice.

Smith, 378.

An advantage claimed for the method of voting arranged is that it will enable the Colonies possessing votes to have separate representation at the Conference, and to give full effect to their own views. Incidentally it may be mentioned that if Egypt adheres she also would have a vote.

NAVAL INTERESTS.

Naval interests.

44. The Committee are strongly impressed with the all-essential consideration that Naval interests are fully protected and provided for by the Convention.

Daniell, 700, 728, 834.

Davies, 544, 922.

Gavey, 1992-4.

Payne, 958, 983.

The evidence shows that, since February 1904 (when the matter was first fully considered by the Admiralty with the other Departments of the Government principally concerned), the policy of the Admiralty has been the same, namely, that the principle of compulsory inter-communication should be accepted, provided that such regulations should be drawn up, together with provisions for their enforcement, as would in the opinion of the Admiralty be adequate for the purpose of effective control over the general transmission of messages to or from stations in British territory and of preventing interference and confusion. To this another condition was added, as the result of the further and detailed consideration given to the question in the summer of 1906, in view of the forthcoming Conference, namely, that the Government should have a discretionary power of exempting particular stations from the obligation to intercommunicate.

Bethell, 3670-2.

The British representatives, throughout the Conference, were guided by instructions calculated to attain the paramount object of full protection for naval interests; and they were instructed not to sign the Convention unless it were modified in such a manner as to satisfy the above-mentioned conditions. The Admiralty witnesses before the Committee, speaking on behalf of the Board of Admiralty, stated emphatically that the objects the Admiralty had had in view were fully secured; and that from the point of view of Naval interests, ratification was desirable, while a refusal to ratify would be seriously prejudicial to these interests.

The following are the points to which the Admiralty attached the greatest importance :—

Daniell, 641-7.

Davies, 537.

Smith, 95A-98.

(a) Naval and military stations are placed outside the Convention by Article 21, except only in respect of Article 8 (general obligation to avoid, *as far as possible*, interference with other stations); and Article 9 (ships in distress). The Admiralty considered these two obligations to be desirable.

(b) Processes of secret working are not to be divulged.

(c) Supplementary secret apparatus may be set up at stations open for public correspondence.

Daniell, 646.

By Article 7 of the Convention it is allowed, in addition to the apparatus for public use, to make arrangements for radiotelegraphic transmission of a special character, the particulars of which need not be published. This secures facilities for experimental work with due regard to secrecy, should it be required, *e.g.*, to make trial of any new system at a public general station.

Smith, 162 etc.

Bethell, 3670-2.

(d) A reservation to which the Admiralty attach much importance was introduced into the Convention at the instance of the British delegates.

Daniell 651.

Gavey, 1833-44.

Payne, 987-990.

By Articles 2 and 3 of the Final Protocol the Government have reserved full discretion to exempt such commercial coast stations as they may think fit from the obligation to intercommunicate, subject only to the condition that other sufficient provision for general public correspondence in the region affected must be maintained or permitted.

It was considered essential to retain this right of exemption for the following reasons :—

(i) The system of general intercommunication was felt to be necessarily to some extent experimental. It is possible that, at any rate for a short time at the outset,

it may lead to some confusion in crowded waters. The power of exemption will enable non-intercommunicating stations to be maintained in suitable positions, for such periods as may be found necessary.

(ii) It may be found convenient in some cases for experimental purposes to have stations communicating only with the same system.

(iii) If, as the use of wireless telegraphy increases, the traffic at particular points becomes too great to be dealt with by a single station, the provision of an "exempted" and a "non-exempted" station will provide a ready means of dividing the traffic.

(iv) Generally, the power of exemption gives greater flexibility to the proposed arrangements, and provides for unforeseen developments.

The British Delegates were therefore instructed not to accept the principle of general intercommunication unless it were qualified by the power of exemption. A declaration to this effect was made by them at the first meeting of the Conference, and their requirements were met by the insertion of Articles 2 and 3 of the Final Protocol, whose purport has been indicated above.

Certain countries which had strongly supported the principle of intercommunication without any exception, inserted a declaration that they did not propose to avail themselves of this power. The Committee consider that there is no foundation for the suggestion that this renunciation on the part of some countries affects the utility of the provision for those countries which may wish to avail themselves of it. Hall, 1354, etc.

There is no provision in the Convention making it obligatory on the Government to provide a second station for general public correspondence alongside a naval station. This is only made obligatory when a commercial station is exempted and therefore withdrawn from general public correspondence; whilst it rests in the power of the Admiralty, if they deem it desirable, to allow a naval station, under certain conditions to carry on commercial correspondence. Smith, 165, 174.
Loring, 1171.

(e) Stringent regulations have been drawn up, together with provisions for their enforcement, to the satisfaction of the Admiralty, for the purpose of securing effective control over the general transmission of messages to or from stations in British territory, and of preventing interference and confusion. Daniell, 608.
Bethell, 3735

The regulations which were proposed by the British delegates to meet this object, and which had been carefully drawn up in accordance with the views of the Admiralty, were accepted by the Conference without any material alteration.

(f) One essential consideration from the Imperial point of view, is that as many as possible of the shore stations of the world should be on British territory, and, therefore, able to be brought, in times of emergency, under the control of the British Government. Daniell, 691.
Davies, 544.
Payne, 958.

Much evidence was presented to the Committee as to the probable effect of the Convention from this point of view. It appears to the Committee that if shore stations on British territory are rendered freely available for communication with the ships of all countries, without restriction as to the system employed, the natural advantages arising from the geographical position of the British Islands and various British possessions will draw traffic to British stations, and will provide a commercial inducement for the erection of such stations. If, on the other hand, a policy of non-intercommunication is supported, and foreign ships, wishing to communicate with British stations, are required to comply with unacceptable conditions, there will be a direct and powerful motive for the erection of stations on foreign territory. Smith, 330.
Daniell, 661.
Hall, 1421.
Gavey, 1865.

(g) If Great Britain adheres to the Convention, in war time she would derive benefits from having all wireless telegraph stations on her shores, at home and abroad, available for communicating with any one of her ships (whether Naval or Mercantile Marine) at will, independently of the systems in use, and the commercial ships would be in a state of organisation which would allow of their being used for naval purposes if required. It is to Great Britain's advantage to increase the development of wireless telegraphy for commercial purposes, so as to be able to utilise her large Mercantile Marine as sources of information for Naval requirements in war time Payne, 3639.

Daniell, 653.
Gavey, 1806.
Payne, 957, 992.

(*h*) The reservation of the use of wave lengths between 600 and 1,600 metres for naval purposes. This was considered of importance by the Admiralty. It does not mean that the Navy cannot use wave lengths below 600 or above 1,600 metres; but leaves this range free from interference by commercial installations.

Payne, 965.

(*i*) A period of nearly two years was reserved before the Convention was to come into force. This gives the Government, and especially the Admiralty, time to consider and decide on which stations are to be exempted, and where others are considered necessary in substitution, and to take such steps as may be required.

Daniell, 637-9.
Davies, 537-8.

(*j*) In time of war or national emergency, all or any wireless stations on British territory can be occupied or closed at the discretion of the Government, stringent powers in this respect being contained in every licence granted by the Postmaster-General. Articles 7 and 8 of the St. Petersburg Convention, which are applied to wireless telegraphy by Article 17 of the present Convention, give International sanction, so far as it is required, to such action.

COMMERCIAL INTERESTS.

Commercial and
Mercantile
interests.

45. Approaching the question from the point of view of British commercial interests, there can be no doubt that the freest utilization of wireless telegraphy is to the general interest of commerce and of the mercantile marine.

Maskelyne,
2567-9.
Philipps, 2838,
2841, 2843,
2870-2.
Bright, 4033.

It would be a manifest advantage for commercial purposes that every British ship, fitted with any form of existing apparatus, should be able to communicate freely with the greatest number of other ships and land stations throughout the world.

Inglefield, 2041.
Maskelyne,
2567-9.
Marconi, 3089-90,
3093-4, 129-32.
Philipps, 2839.
Bright, 4034.

Evidence was laid before the Committee giving conspicuous illustrations of the commercial inconvenience, due to the exclusive conditions attaching to the use of Marconi apparatus. The Royal Mail Steam Packet Company's ships are fitted with De Forest apparatus, which enables them to communicate on their line of services from the River Plate to New York with that and other systems established along these coasts, but on entering the English Channel, where only Marconi stations are established, these ships are refused communication. On the other hand, if these steamers were fitted with Marconi apparatus they would then be debarred from communicating with the stations along the line of service mentioned above, and even with other ships of their own line fitted with the De Forest apparatus.

The Convention removes this obstacle to intercommunication, a result which can only be attained by International agreement.

Smith, 98.

The Convention expressly provides by Article 9 that "Radiotelegraph stations are bound to accept with absolute priority calls of distress from ships, to answer such calls with similar priority, and to take the necessary steps with regard to them." It is clearly desirable, in the interests of humanity, that such an obligation should apply to all stations without exception, and it is therefore made binding upon all stations, whether naval or other.

46. Lloyds is an Institution financially interested in no particular Wireless Company, but directly concerned in the welfare of the British Mercantile Marine. In the matter of wireless telegraphy, regarded from its commercial side, the evidence of Lloyds is entitled to consideration, and the Committee have been impressed by the support which that Corporation gives to the Convention. In this matter the interests of Lloyds would naturally be identical with British Commercial interests as a whole.

Non-intercommu-
nication injurious
to commercial
interests.

Inglefield, 2041.
Maskelyne, 2613-
22.

Bright, 4035.

47. Ship and shore communication is essentially an International matter commercially, and its development has reached a stage at which International agreement becomes indispensable, as in the case of the Postal and Telegraph Services. As the use of wireless telegraphy becomes more widely spread, its importance to our Mercantile Marine can hardly be overestimated.

It follows, therefore, that any artificial restrictions imposed in the interests of any particular company are to the detriment of commercial and mercantile interests. Under the present system controlled by the Marconi Company, which prohibits intercommunication with other systems, a large and increasing number of ships and stations, using other systems, are excluded from the advantages of intercommunication.

There is little room for doubt that free intercommunication (properly safeguarded) and International control, will, at an early date, become inevitable. It is clear from the evidence that if Great Britain refuses to ratify, the Convention will be ratified by the other Powers notwithstanding, and that Great Britain would subsequently be constrained to come into the Convention, possibly under much less favourable terms.

Davies, 547, 549.
Daniell, 633.
Gavey, 1821,
1832, 1904.
Lodge, 2237,
2258-9.

Among other points secured by the British delegates in favour of commercial interests may be mentioned :—

- (a) Regulation XXXIX. provides that arrangements are to be facilitated “for communicating to maritime news agencies information respecting wrecks and shipping casualties, or of general interest for purposes of negotiation.” This specially affects Lloyd’s, who have already arranged for reports of casualties and other maritime intelligence from foreign wireless stations to be forwarded to them. If Great Britain declines to ratify, foreign Governments may, by way of retaliation, decline to supply Lloyd’s with maritime intelligence, and may possibly also cancel the privileges granted to Lloyd’s at foreign semaphore stations, which have been of great advantage to ship-owners, consignees, charterers, and all interested in ships and cargoes.
- (b) Omission of the draft Article which sought to require all adhering countries to “boycott” systems refusing to intercommunicate.
- (c) The Arbitration Article was rendered optional instead of compulsory. This alteration was important and desirable, in view of the complicated and delicate nature of the questions on which arbitration might be invoked.

POSITION OF THE MARCONI COMPANY.

48. The above paragraphs deal with radiotelegraphy as a matter of National and International concern. It remains for the Committee to touch upon a subsidiary matter, but one that requires consideration, namely, the position of the Marconi Company. The Marconi Company, the only opponents to the Convention who have appeared before the Committee, cannot be regarded as having any claim to a monopoly of wireless telegraphy; although, under present conditions, they have secured what amounts to something approaching a monopoly in respect of Great Britain, Italy, and Canada. As regards Great Britain, the position is due to the fact that for various reasons, and pending a settlement of the policy to be finally adopted, the Postmaster-General has hitherto refrained from issuing licences for competing stations on the South Coast of England and Ireland. Had the Marconi system been the only one in existence, there would still have been necessity for regulations for the proper working of the system through inter-governmental control; but this necessity becomes accentuated by the existence of other systems with stations working throughout the world.

Maskelyne, 2567,
2576, 2629, 2642.
Marconi, 3296.
Muirhead, 2353-5.

As evidence of the fact that free competition even in the crowded waters of the English Channel was contemplated, Clause 3 (1) and (2) in the Post Office Marconi Agreement of 1904 (inserted at the instance of the Company) stipulated that if the Post Office licensed stations at which any system of wireless telegraphy, other than the Marconi system, is installed, every licence or permission granted by the Government should contain “suitable conditions with the object of securing non-interference with other wireless telegraph stations”; “provided that such conditions shall not unreasonably require the Companies to change the position of any station, or to make any change in apparatus or arrangements which have already been adopted by them *bona fide* for the purpose of communication, and which for the purposes of each station are in conformity with the best and most efficient methods at their disposal for preventing interference. The Companies shall, in any case, work their stations, as far as possible, so as not to interfere with the working of other stations.”

Post Office
agreement.

This Agreement of 1904 between the Postmaster General and the Marconi Company is printed as an Appendix to this Report. It conferred upon the Company certain rights, privileges, and advantages, and contained the following :— Clause 10: “In the event of His Majesty’s Government adhering for the United Kingdom to a Convention based substantially on the stipulations contained in the Protocol of the recent Berlin Conference on Wireless

Post Office—
Marconi
Agreement.
Daniell, 605
Smith, 440.

Telegraphy, the Companies undertake, if required by the Government, to observe in the United Kingdom and on British ships the provisions (except Article 6) of the Convention, and of any detailed regulations made thereunder for carrying these provisions into effect, and, in particular, and without prejudice to the generality of the foregoing undertaking the Companies undertake, if required by the Government, in relation to shore stations in the United Kingdom and ships equipped with Marconi apparatus for ship and shore messages, to accept (without prejudice to the patent rights) the obligation to interchange messages with ships and shore stations in the United Kingdom, respectively, equipped with other apparatus, and to relieve the Admiralty and Lloyds and all other persons with whom the Companies have contracted from any obligation arising under their contracts to refuse to interchange messages with ship or shore stations in the United Kingdom so equipped, or to make any compensation in respect of the interchange of such messages."

The Marconi Company propose to make use of the words "without prejudice to their patent rights" in order to evade the obligation to intercommunicate which the above clause places upon them.

Patent Rights.
Hall, 1384,
1438-45 1443,
1484-7.
Marconi, 3024,
3061.

The Marconi Company contend that an obligation of compulsory intercommunication between different systems, under an International Convention, must result in an infringement of their patent rights, and therefore that the expression in the Post Office Agreement "without prejudice to their patent rights" continues to put the Company in a superior position throughout the period of the agreement to any arrangement, international or otherwise, involving intercommunication that may, during that period, be brought into force.

This contention may or may not be found sound in a court of law, and the Committee feel precluded, therefore, from expressing any opinion upon it; but it appears obviously inconsistent with the intention of the Parties, when making the agreement. The wording of the clause referred to clearly indicates the desire of the Post Office to contemplate an International Convention, and seems to dispose of the contention that an International Convention would be a reversal of a policy which the Marconi Company must have contemplated at the time of signing the agreement.

If this intention was in the minds of the Marconi Company when they negotiated the agreement, it would appear to be open to grave criticism, in that they are now endeavouring to evade the main condition which led the Postmaster-General to enter into an agreement granting them advantages which they have enjoyed, still enjoy, and propose to retain.

Advantages to
Marconi Com-
pany of inter-
communication.
Loring, 1147.
Gavey, 1999.
Marconi, 3302.

49. There appears to be little doubt, from the evidence placed before the Committee, that even if Great Britain declines to ratify the Convention the other Powers will do so. Assuming that the Marconi Company maintained the policy of non-intercommunication, the result would be that, under Articles 1, 2, and 3 of the Convention, Marconi apparatus would have to be removed from all ships and stations belonging to signatory nations, thus seriously diminishing the scope and effectiveness of the Marconi organisation on which the Company lay so much stress. On the other hand, if Great Britain were to ratify, and if, as a consequence, the Company abandoned the policy of non-intercommunication, there would be no necessity for this removal.

Once intercommunication is assured, other British steamship lines which have not hitherto adopted wireless telegraphy will, it may be anticipated, find it to their advantage to do so, and there is no reason why the apparatus employed should not be Marconi.

Smith, 321.
Daniell, 690.
Maskelyne, 2569,
2622.

In any event, whether ships are equipped with Marconi or other apparatus, the existing Marconi shore stations under the Convention should, and no doubt would, in consequence of their advantageous geographical position and under the conditions of intercommunication established, receive a greater volume of business. It may be pointed out also that the Marconi Company will receive until 1911 an additional rate

for messages interchanged with other systems, "such additional rate not to exceed the rate allocated to the shore stations." (Clauses 10, 11. Agreement, Marconi and P.M.-General, 1904.)

50. In reviewing the relations of the Government with the Marconi Company two points stand out especially clear in the light of subsequent events. As to compensation.

(1.) If, at the time when the Post Office were giving to Mr. Marconi effective assistance, the Government had thought it expedient to secure a right of pre-emption of his invention and patents, an enterprise of national importance would have been prevented from passing into the hands of a private company and subsequent difficulties might have been avoided.

(2.) The fact, to which reference has already been made, that the Post Office has largely refrained from issuing licences to other companies, has given the Marconi Company something approaching a monopoly during an important period, and may therefore have encouraged their dreams of a general monopoly.

51. Whilst the Committee consider that the Marconi Company have exaggerated the case against ratification, under the apprehension that they will suffer commercial injury by the operation of the Convention, the Committee would be very reluctant to make any recommendation which would impede or be injurious to the fair working of their business.

They recognise the valuable work which has been done by the Marconi Company as the pioneers of practical wireless telegraphy, and this work is fully appreciated by the nation. From the evidence placed before them, the Committee see no reason to apprehend that the obligations of the Convention, if faithfully carried out by all concerned, will prove injurious to the Marconi Company. If, on the other hand, it is found by practical experience that the Marconi Company are injuriously affected, the Committee recommend that they should be treated with a generous consideration quite irrespective of and without prejudice to their legal position.

In all cases of legislation in the public interest, and where damage can be shown to accrue to private interests, something in the nature of compensation is, and should be, granted. In this case, as already stated, the Committee are not of the opinion that the Marconi Company can found an equitable claim upon the terms of their Agreement with the Post Office. But in view of the particular circumstances of the case, the Committee recommend that, provided the Marconi Company loyally co-operate in carrying the Convention and the policy which it represents, and in the event of it being shown, under proper conditions of audit, that the Marconi Company during the transition period under the new conditions brought about by the Convention, have suffered diminution of business at their British stations, they should be granted compensation for a period of three years from the day of the Convention coming into operation—and that the compensation should be based upon a comparison with the average annual net traffic receipts from their British stations, during the three years preceding ratification.

GENERAL OBSERVATION.

52. This being the analysis of the evidence, the Committee proceeds to conclusions. There appear to be three alternatives open to Great Britain :—

Ratification—Rejection—Postponement.

It may be convenient to dispose of the two latter first.

REJECTION.

Rejection would seem to be the more obvious alternative to ratification. The only evidence in favour of rejection was that of Mr. Cuthbert Hall, General Manager of the Marconi Company; of Professor Fleming, Scientific Adviser of the

Marconi Company; of Mr. Henniker Heaton; and, with much less intensity, of Mr. Marconi. An examination of the statement of these witnesses shows that their arguments were based mainly on a consideration of the interests of the Company.

Rejection would seem to the Committee to involve the following results:—

INJURIOUS EFFECTS OF NON-RATIFICATION.

(a) Great Britain took a prominent part in the Conference, and the Convention was modified in many important respects in order to meet her wishes and secure her adherence. If Great Britain now refuses to ratify, doubt will be thrown upon the sincerity of her expressed views at the Conference. The contrast between the attitude of the British Government at the time of the Conference and its attitude in refusing to ratify, would be emphasised by the fact that the next Conference was invited to meet in London.

(b) It would create a direct and powerful motive for the erection of stations on foreign territory; and such stations will be in no way subject to British control in time of war or emergency.

(c) Foreign ships and coast stations would seriously interfere with British stations. Such interference would arise from the normal operations of ships in the Channel and elsewhere communicating with distant stations on foreign coasts. Not only would other nations be forced to erect additional shore stations, but these stations and the ship stations as well would be obliged to use additional energy. This natural interference might probably be increased by intentional action, and, without the Convention, British stations would have no remedy.

(d) In the absence of International arrangements and rules for working, accounts, collection of charges, &c., the development of the service would be seriously embarrassed.

(e) The drawbacks indicated in the three previous heads would be specially detrimental to Great Britain, owing to the predominance of her maritime interests and her geographical position.

(f) Under the terms of the Convention, the nations adhering are bound to refuse to license, on board a ship or at shore, stations the apparatus of any system which declines to accept the principle of intercommunication. If Great Britain, therefore, refuses to ratify, the Marconi apparatus at present installed at foreign shore or ship stations will be removed, and its place will be taken by some system that accepts inter-communication.

POSTPONEMENT.

53. No evidence was given to your Committee in favour of postponement as distinguished from non-ratification. It may be pointed out that postponement would in no way diminish any of the unfortunate results which would follow on rejection, while it would be attended by the grave additional result that the action of Great Britain might be open to much misconstruction in regard to the position she took up at the Conference, through which important concessions were obtained by her delegates.

Further, it would prolong a period of uncertainty, without securing any conditions by which the future would be determined. No evidence has been brought before the Committee to show that within any specified time the scientific aspects of the question will undergo any substantial alteration of a kind which, in the Committee's opinion, is not already amply provided for and protected by the various provisions of the Convention.

Moreover, the Convention would, it is assumed, be brought into operation without reference to Great Britain. Great Britain having such a predominant

interest in the question, ought to be in a position to make her influence felt from the start, in interpreting, administering and enforcing the terms of the Convention.

The fact that by twelve months' notice Great Britain can at any time withdraw from the Convention if it is found that British interests are in any way jeopardised, appears to secure all necessary liberty of action, especially during the experimental period.

It appears to the Committee, therefore, that, from the point of view of national and public interests, rejection presents serious drawbacks, and that postponement is even less defensible.

RATIFICATION.

54. These alternatives being disposed of, the Committee proceed to set out the effect of the adhesion of this country to the Convention. Many of the advantages attending ratification have been stated in the body of the Report. The principal of those advantages may be summarised as follows :—

The primary object of the Convention is to facilitate and promote the use of Wireless Telegraphy, especially for maritime purposes, a matter essentially of an International character and, having regard to her predominant maritime interests, of high importance and benefit to this country.

(1.) The Convention facilitates the use of Wireless Telegraphy by providing International arrangements for rules of working, control, licensing of operators, efficiency of apparatus, collection of charges, transmission of messages, publication of information, &c.

(2.) The Convention provides the means of preventing confusion and of avoiding interference between neighbouring ship or shore stations, a result increasingly difficult or impossible of attainment, except by International agreement.

(3.) The Convention secures general freedom of communication between ships and coast stations, thus giving British ships fitted with any form of apparatus the advantage of being able to communicate freely with the greatest number of other ships and land stations throughout the world.

(4.) The freedom of communication thus secured, and the protection from interference thus afforded, will give free play to all systems and will thus tend to the encouragement and progress of invention in connection with Wireless Telegraphy.

These advantages, important though they be, are secondary to the supreme consideration of naval interests and national defence. The unanimous evidence of witnesses representing and speaking on behalf of the Admiralty and War Office is conclusive that the Convention (now framed largely on the initiative of the British Delegates) obviates injury and secures substantial advantages not otherwise attainable (as explained in detail in Paragraph 43, above).

Among these advantages are the following :—

(A) A general obligation is imposed on all stations not to interfere with the working of other stations.

(B) Exempted stations are allowed and given International sanction. Certain wave-lengths are reserved for Naval use, so as to be absolutely free from interference by commercial stations.

(C) International sanction is obtained for such censorship arrangements as may be necessary.

(D) The effect of the Convention, if adhered to by Great Britain, would be directly to encourage the erection of stations at suitable points in British territory, and the general development of the use of Wireless Telegraphy in the British Mercantile Marine, thus providing a widely extended system over which the Admiralty would have control in time of emergency.

(E) It may be added that the Convention has been framed with careful regard to the interests of His Majesty's Dominions beyond the seas, the several Colonies and India being able to adhere and withdraw separately, as may appear to them expedient; and the means of adequate representation at future Conferences has been obtained for such Colonies or Dependencies as may subsequently adhere.

(F) Finally, the fact may be emphasised that at any time, if she finds the Convention to be in any way detrimental to her interests, Great Britain, by giving a year's notice, may retire from the Convention. Meanwhile, if she ratifies, no alteration to her detriment can be made in the Convention without her consent; and it has been already explained that the Bureau has no initiative or executive powers of any description.

(G) Some apprehension has been expressed that the Convention may have the effect of impeding the progress of Scientific invention. The Committee are of opinion that it will not have any such effect; but if, contrary to their expectations, it should be found in practice that any of the Regulations have the result of discouraging invention, they recommend that steps should be taken to obtain such amendments as may be necessary in order to avoid that result; and it may be borne in mind, that in the last resort, Great Britain would be able to take advantage of Article 22, and withdraw from the Convention.

55. In view of the foregoing considerations it is manifest that universal free intercommunication, with the exceptions and exemptions secured in the Convention, is a principle to be aimed at, and one that must be of benefit both nationally and internationally.

A careful perusal of the *Proces verbaux* will show that the representations of the British delegation for amendments and modifications of the draft Convention were met in the most considerate manner by the Conference. In all essential points, the Convention now conforms to the conditions laid down by the Government with the view of securing national interests. The Committee, in conclusion, desire specially to lay stress upon the observation that if, after the substantial changes made on the initiative of the British delegates, Great Britain refuses to ratify, the result might have a material effect in weakening the moral position of Great Britain at future International Conferences.

56. The Committee have set out these arguments and considerations in elaborate detail because they interpret the reference to them to mean that their report is intended by the Government to be an important factor in the final action which it may take, and they have, in consequence, given fully the grounds on which they now base their conclusion and report.

57. The Committee, therefore, report that, in their opinion, the effect of the adhesion of this country to the Convention would be advantageous to national and public interests, and that its non-adhesion would be detrimental to those interests.

58. The Committee further venture to recommend that, if, in accordance with this Report, it is decided to ratify the Convention, the Government should endeavour to arrange for simultaneous ratification by the principal countries who composed the Conference. This would prevent the necessity for exceptional and provisional arrangements, in the contingency of other countries not ratifying, and would be in accord with the spirit of international amity which marked the proceedings of the Conference.

59. The proceedings of the Committee have been public, and every opportunity has been afforded for evidence being given germane to the inquiry.

8th July, 1907.

PROCEEDINGS OF THE COMMITTEE.

Wednesday, 13th March 1907.

MEMBERS PRESENT:

Mr. Sydney Buxton.
Sir John Dickson-Poynder.
Mr. Enoch Edwards.

Sir William Holland.
Mr. Arthur Lee.
Sir Gilbert Parker.

Sir JOHN DICKSON-POYNDER was called to the Chair.

The Committee deliberated.

[Adjourned to Tuesday next, at Eleven o'clock.]

Tuesday, 19th March 1907.

MEMBERS PRESENT:

Mr. Sydney Buxton.
Mr. Gwynn.
Sir William Holland.
Mr. Lambert.
Mr. Arthur Lee.

Mr. Macpherson.
Sir Edward Sassoon.
Sir Gilbert Parker.
Mr. Adkins.

Sir JOHN DICKSON-POYNDER in the Chair.

Mr. *H. Babington Smith*, C.B., Secretary to the Post Office, was Examined.

[Adjourned to Thursday next, at Eleven o'clock.]

Thursday, 21st March 1907.

MEMBERS PRESENT:

Mr. Sydney Buxton.
Mr. Adkins.
Mr. Gwynn.

Mr. Lambert.
Mr. Arthur Lee.
Sir Edward Sassoon.

Sir JOHN DICKSON-POYNDER in the Chair.

Mr. *H. Babington Smith* was further Examined.

Colonel *F. J. Davies*, A.Q.M.G., was Examined.

[Adjourned to Tuesday next, at Eleven o'clock.]

Tuesday, 26th March 1907.

MEMBERS PRESENT:

Mr. Adkins.
Mr. Sydney Buxton.
Mr. Gwynn.
Sir William Holland.
Mr. Lambert.

Mr. Arthur Lee.
Mr. Macpherson.
Sir Gilbert Parker.
Sir Edward Sassoon.

Sir JOHN DICKSON-POYNDER in the Chair.

Colonel *J. F. Daniell*, of the Admiralty, was Examined.

Commander *C. R. Payne*, R.N., of H.M.S. "Vernon," was Examined.

[Adjourned to Tuesday, 9th April, at half-past Eleven o'clock.]

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Tuesday, 9th April 1907.

MEMBERS PRESENT :

Mr. Sydney Buxton.
Mr. Gwynn.

Mr. Lambert.
Mr. Arthur Lee.

Sir JOHN DICKSON-POYNDR in the Chair.

Lieutenant *F. G. Loring*, R.N., of the Admiralty, was Examined.

Mr. *G. W. Johnson*, C.M.G., of the Colonial Office, was Examined.

[Adjourned to Tuesday, 16th April, at Eleven o'clock.]

Tuesday, 16th April 1907.

MEMBERS PRESENT :

Mr. Sydney Buxton.
Mr. Gwynn.
Mr. Lambert.
Mr. Arthur Lee.

Mr. Adkins.
Mr. Macpherson.
Sir William Holland.

Sir JOHN DICKSON-POYNDR in the Chair.

Mr. *Cuthbert Hall*, Managing Director of the Marconi Company, was Examined.

[Adjourned to Thursday next, at Eleven o'clock.]

Thursday, 18th April 1907.

MEMBERS PRESENT :

Mr. Adkins.
Mr. Sydney Buxton.
Mr. Gwynn.
Sir William Holland.

Mr. Lambert.
Mr. Arthur Lee.
Sir Gilbert Parker.
Sir Edward Sassoon.

Sir JOHN DICKSON-POYNDR in the Chair.

Mr. *J. Gavey*, C.B., of the General Post Office, was Examined.

Captain *Inglefield*, R.N., Secretary of Lloyds, was Examined.

[Adjourned to Tuesday next, at Eleven o'clock.]

Tuesday, 23rd April 1907.

MEMBERS PRESENT :

Mr. Sydney Buxton.
Mr. Gwynn.
Mr. Lambert.
Sir Edward Sassoon.

Mr. Arthur Lee.
Mr. Adkins.
Sir William Holland.
Sir Gilbert Parker.

Sir JOHN DICKSON-POYNDR in the Chair.

Sir *Oliver Lodge* was Examined.

Mr. *Henry Muirhead* was Examined.

[Adjourned to Thursday next, at half-past Eleven o'clock.]

Thursday, 25th April 1907.

MEMBERS PRESENT :

Mr. Sydney Buxton.
Mr. Gwynn.
Mr. Arthur Lee.

Sir Edward Sassoon.
Mr. Macpherson.
Sir William Holland.

Sir JOHN DICKSON-POYNTER in the Chair.

Mr. *Nevil Maskelyne*, F.R.A.S., Technical Adviser to the Amalgamated Radiotelegraphic Company, was Examined.

Mr. *Henniker Heaton*, a Member of the House, was Examined.

[Adjourned to Tuesday next, at Eleven o'clock.]

Tuesday, 30th April 1907.

MEMBERS PRESENT :

Mr. Sydney Buxton.
Mr. Gwynn.
Mr. Lambert.
Mr. Arthur Lee.

Mr. Adkins.
Sir Edward Sassoon.
Sir Gilbert Parker.
Mr. Macpherson.

Sir JOHN DICKSON-POYNTER in the Chair.

Mr. *Owen Phillips*, a Member of this House, and Chairman and Managing Director of the Royal Mail Steam Packet Company, was Examined.

Mr. *Marconi* was Examined.

[Adjourned to Tuesday, 7th May, at Eleven o'clock.]

Tuesday, 7th May 1907.

MEMBERS PRESENT :

Mr. Sydney Buxton.
Mr. Gwynn.
Mr. Lambert.
Mr. Arthur Lee.

Mr. Macpherson.
Sir Gilbert Parker.
Mr. Adkins.

Sir JOHN DICKSON-POYNTER in the Chair.

Sir *William Preece*, K.C.B., F.R.S., was Examined.

Dr. *J. A. Fleming*, F.R.S., was Examined.

[Adjourned till Tuesday next, at half-past Eleven o'clock.]

Tuesday, 14th May 1907.

MEMBERS PRESENT :

Mr. Sydney Buxton.
Mr. Lambert.
Mr. Arthur Lee.
Sir Edward Sassoon.

Mr. Gwynn.
Sir William Holland.
Mr. Adkins.

Sir JOHN DICKSON-POYNTER in the Chair.

Commander *C. R. Payne*, R.N., was further Examined.

Captain the Hon. *A. E. Bethell*, C.M.G., A.D.C., R.N., was Examined.

Mr. *H. Babington Smith*, C.B., was further Examined.

[Adjourned till Tuesday, the 28th inst., at half-past Eleven o'clock.]

Tuesday, 28th May 1907.

MEMBERS PRESENT:

Mr. Lambert.
Mr. Sydney Buxton.
Mr. Macpherson.
Mr. Gwynn.

Sir Gilbert Parker.
Mr. Lee.
Sir Edward Sassoon.
Mr. Adkins.

Sir JOHN DICKSON-POYNDR in the Chair.

Mr. *Cuthbert Hall* was further Examined.

Mr. *Charles Bright*, F.R.S.E., was Examined.

[Adjourned till Thursday, the 6th June, at half-past Eleven o'clock.]

Thursday, 6th June 1907.

MEMBERS PRESENT:

Sir William Holland.
Mr. Lee.
Mr. Sydney Buxton

Sir Gilbert Parker.
Mr. Adkins.

Sir JOHN DICKSON-POYNDR in the Chair.

The Committee deliberated.

[Adjourned till Tuesday the 18th June, at Eleven o'clock.]

Tuesday, 18th June 1907.

MEMBERS PRESENT:

Mr. Arthur Lee.
Mr. Gwynn.
Sir William Holland.
Sir Edward Sassoon.

Mr. Adkins.
Mr. Sydney Buxton.
Mr. Lambert.
Sir Gilbert Parker.

Sir JOHN DICKSON-POYNDR in the Chair.

DRAFT REPORT proposed by the Chairman brought up and read the first time, as follows:—

INTRODUCTORY.

Meetings.

1. The Committee have held 13 meetings and examined 18 witnesses whose official or commercial experience and scientific attainments qualified them to give evidence on the subject referred to the Committee.

Reference.

The terms of Reference were as follows:—"That a SELECT COMMITTEE be appointed to consider the **RADIOTELEGRAPHIC CONVENTION**, signed at Berlin on the 3rd day of November, 1906, and to report what, from the point of view of national and public interests, would in their opinion, be the effect of the adhesion or non-adhesion of this country to the Convention."

2. Among the witnesses whose evidence the Committee have taken were several of the Witnesses, delegates appointed by Great Britain to attend the Berlin Conferences of 1903 and 1906, referred to later; Government officials of the Admiralty, War Office, Post Office, and Colonial Office, a witness from Lloyd's and a representative of a large steamship company, representing the shipping interests; scientific and other witnesses to explain various systems of radiotelegraphy other than that of Marconi, representatives of the Marconi Companies, and Mr. Marconi himself.

3. The Committee have been furnished by several witnesses with a general review of the past History of wireless telegraphy. history and development of the art of wireless telegraphy—termed also radiotelegraphy, the name officially adopted by the Convention—since it has been in operation on practical lines in Great Britain. This history may best be briefly reviewed by an account of—

- (I.) The invention and development of wireless telegraphy from a scientific discovery to an applied art;
- (II.) Its political history and International recognition.

SCIENTIFIC HISTORY.

4. Wireless telegraphy or radiotelegraphy means the transmission of signals by electrical energy between two points which are not connected by a wire or other metallic conductor. The term is specially used—and exclusively used in the Convention—in connection with instruments employing the Hertzian waves, so called from their discoverer, Heinrich Hertz.

What radiotelegraphy is.
Gavey, 1792.
Lodge, 2116.
Marconi, 2888
Smith, 3.

Before the discovery of the Hertzian wave other methods were used experimentally for sending messages across space without conjunction other than the earth :—

Earlier methods.
Gavey, 1785–90.

(1) By earth induction, using two parallel or nearly parallel wires erected, for example, on either side of a stream each end fitted with telegraphic apparatus; (2) by electric-magnetic induction; and (3) by a combination of the two former. This means was taken up by Sir (then Mr.) W. Preece in 1885 (then electrician to the Post Office), and a system was set up of telegraphic communication without direct connecting wires between places not more than six or seven miles apart. A wireless telephone service has been established by Mr. Gavey on this basis between Holyhead and the Skerries, and recently telephonic speech has been exchanged between the two stations with the greatest ease.

Wireless telephony.
Gavey, 1788–90

5. These induction systems are not, however, suitable for communication over a long distance, nor for communication with ships, and the methods now used for that purpose are all based on the employment of the Hertzian waves. The means employed in transmitting messages across space without physical connection consists broadly of two stations—a transmitting station and a receiving station. At each of these stations a wire or wires must be erected in the air by means of a mast, tower, balloon, kite, etc. This structure of wires is known as the antenna or aerial. Speaking generally, the greater the range intended to be covered the higher or more extensive must be the antenna or aerial. The energy is generated by a battery or generator worked by a steam, gas, oil, or other power engine, and is communicated to the aerial by the transmitting apparatus proper.

Means employed.
Gavey, 1791 *et seq.*
Smith, 4.

6. The receiving apparatus is also connected with the aerial. There are many forms of receiving apparatus in use, and it may be said that one of the principal differences between the several systems of wireless telegraphy consists in the various forms of receiving apparatus. In some the apparatus automatically records the dots and dashes of the Morse alphabet, but in most forms a telephone is attached and the operator hears the dots and dashes, thus permitting of more rapid working than any recording instrument yet devised.

Receiving apparatus.
Smith, 8.

7. With the most powerful stations very great distances have been covered, and signals have actually been transmitted across the Atlantic, but in the present state of the invention communication has not been effectively maintained with regularity over so great a distance, especially by day. The maximum effective range for regular communication by day or night may be put, possibly, at 1,000 or 1,500 miles; but this state of affairs is changing almost month by month. Wireless messages are frequently sent from Poldhu to Gibraltar and Malta. As regards the ordinary ship and shore stations the effective range may be said to vary between 50 and 300 miles, possibly rather more, according to the power of the station.

Range.
Heaton, 2725.
Marconi, 3078.
Smith, 9.

8. The signals are usually sent out with equal energy in all directions. A message sent out for instance from the high power station at Poldhu, in Cornwall, and intended for ships in mid-Atlantic, has been equally received at Nauen, near Berlin, and at the Dutch Station at Scheveningen, or at Gibraltar. Attempts have been made to devise methods of directing the waves, or at least of sending them with the greatest energy in one particular direction, but so far with moderate success. The admiralty are able to determine the direction in which a wireless message is coming under certain conditions.

Direction.
Gavey, 1795,
1803.
Marconi, 3004.
Smith, 10.

9. The main defect which at first characterised wireless telegraphy resulted from in part this inability to control direction. As every receiving station within range of a transmitting centre

Selectivity tuning out
Gavey, 1795–7.

could read all the messages sent from that centre, it was not possible for more than two stations in a given area to interchange signals at a given time without mutual interference. It was impossible, of course, for the ether within a wide radius thus to be monopolised by two persons if the invention was to be of real practical value. It was also obvious that if two sets of apparatus could be so accurately adjusted the one to the other as to respond to one another's radiations whilst other apparatus not so adjusted would not be affected, the practical problem would be solved. It is in the direction of "syntony" or the "tuning" of apparatus so as to induce "selectivity" between them that recent scientific research and experiment have been chiefly concentrated; and, as will appear later, the more or less complete manner in which this has been achieved between different systems constitutes one of the difficulties placed before the Committee.

First practical application to telegraphy.
Gavey, 1791-8.
Lodge, 2117-8.
Marconi, 2884-7, 2891.
Systems in use.

10. The Hertzian waves were first experimentally applied for practical telegraphic purposes in 1895-6 by Mr. Marconi. Many inventions and improvements by Mr. Marconi and others have appeared since at a rapid pace, and there are now several "systems" or "methods" in existence, whilst the number of patents is very great.

11. The principal systems in use are:

Marconi.—The first practical system in the field. The first Marconi British patent was applied for on 2nd June, 1896, and accepted on 2nd July, 1897.

De Forest.—American in origin; acquired in Great Britain, and it is said for all parts of the world except North America, by a British Company, the Amalgamated Radiotelegraph Company.

Fessenden.—American.

Lodge-Muirhead.—British, both as regards invention and ownership. First patent applied for 10th May, 1897, accepted 10th August, 1898.

Telefunken ("far-sparking").—German; an amalgamation of the systems of several different inventors (Slaby, Arco, Braun, Siemens).

Rochfort.—French.

Branly-Popp.—French.

Poulsen.—Danish, of recent invention, the rights in which for all parts of the world have also been acquired by the Amalgamated Radiotelegraph Company.

Shoemaker.—American.

Massie.—American.

Davies, 556.
Gavey, 1857.
Inglefield, 1803.
Lodge, 2118.
Marconi, 2893, 3293.
Maskelyne, 2527.
Muirhead, 2346-2350.
Payne, 960.

Increasing uses of radiotelegraphy.
Smith, 16.

12. The use of radiotelegraphy is rapidly increasing. A large number of instruments are already in operation in various parts of the world. Conflicting evidence was given as to the exact number in commercial use, but this is partly explainable by the fact that the conditions are rapidly changing, and that there are in existence a number of experimental stations and stations not open for commercial work.

A relatively small proportion of the existing stations are on British territory. The greatest number are in the United States. There are also a considerable number in Italy and Germany, a few in Holland, Belgium, Spain and France, and several for non-commercial purposes in Russia.

It would appear, according to the most recent returns, that there are 186 commercial coast stations throughout the world, of which some 63 are Marconi and 123 other than Marconi.

There is a preponderating number of Marconi stations in Great Britain, Italy, and Canada, but in all other parts of the world, with few exceptions, the stations are on the other systems.

The most important stations are those situated on the South Coast of the United Kingdom, which is, owing to its geographical situation and the predominant part it plays in the maritime business of the world, the principal focus of ocean commerce.

Distribution of existing stations.
Gavey, 1854, 1858, App. No. 2022.
Smith, 21.
Gavey, 1814.
Inglefield, 2032.
Smith, 22.

Principal uses of radiotelegraphy.
Smith, 23.

13. The principal uses of radiotelegraphy may be placed under two main heads:

(1) Naval and military purposes.

(2) Commercial and mercantile purposes.

Reserving the former for discussion in a later part of this Report, the latter may be again divided into three classes—

(a) Shore to shore communication.

(b) Ship to ship communication.

(c) Ship and shore communication.

Davies, 540.

Smith, 26.

The Committee have been informed that shore to shore use of radiotelegraphy has not at present reached a point at which International regulation has become indispensable, and therefore stations intended for the purpose of shore to shore communication exclusively were left outside the Convention, except so far as regards the application of two articles thereof, which will be referred to later.

14. It will be convenient here, however, to define exactly what is meant by shore to shore communication. The expression includes communication from one shore station to another shore station, irrespective of whether they are in the same or different countries, or whether the sea is crossed in such communication. Thus a shore to shore communication would be one from (1) Dover to Brest, or (2) London to Paris (that is, from one territory to another across the sea), or from (3) Paris to Berlin (similarly but not crossing sea), or (4) from London to York (within the same territory). Shore to shore communication. Smith, 23.

It embraces, in point of fact, such communication as would take the place of telegraphy by land wires or submarine cables, or supplies communication where the ordinary methods would be inapplicable, either on financial or physical grounds. Thus the Lodge-Muirhead communication between Burmah and the Andaman Islands, where the traffic is not enough to pay for a cable, is an instance of wireless telegraphy of this category.

It should also be specially noted that shore to shore communication includes communication with lightships, or other ships permanently moored, lighthouses and outlying islands. A number of installations of this kind have already been established both on the British coasts and elsewhere Smith, 23.

15. The expression ship to ship communication is self-explanatory. The question of the application of the Convention to such communication will be dealt with later. Ship to ship communication. Daniell, 702. Gavey, 1908-14, 1935.

16. The expression ship and shore communication means communication between a coast station and a ship at sea. "Coast station" is defined as any radiotelegraph station which is established on land or on board a ship permanently moored, and which is used for the exchange of correspondence with ships at sea. The coast station may be actually on the coast, as at Poldhu, or miles inland. Thus communication from Nauen, near Berlin, to a vessel up Channel would fall within this definition. Smith, 423. Ship and shore communication.

17. In the absence of other invention, there is at present small likelihood of wireless telegraphy competing commercially with ordinary telegraphy over land wires, or superseding the use of cables. But if transmarine radiotelegraphy could be effected with certainty and reasonable speed there would be an extensive field for its employment as a subsidiary method to cable. Radiotelegraphy versus wire telegraphy. Smith, 24.

For military and naval purposes, especially to Great Britain in time of war, when the cables might be cut, the importance of the invention cannot be overestimated. Smith, 24, Bright.

18. The principal application of wireless telegraphy has been in the provision of the entirely new facility for communicating between shore and ship, and *vice versa*. It is the rapid development of this kind of radiotelegraphy which has rendered International Regulation desirable, Use of radiotelegraphy ship to shore. Smith, 27.

Ship and shore communication may be divided into two classes or three different categories:—

1. Maritime intelligence.

2. Sea telegraphy.

(a) News messages.

(b) Private and commercial messages.

19. Under the first heading would fall messages relating to the service or safety of the ship, such as reports of a ship's position, time of arrival in port, directions for berthing and docking, or as to cargo, etc.; information regarding navigation, such as icebergs, derelicts, approaching storms; and in the case of a stranding or collision, fire, or other casualty, the summoning of assistance. It would enable a port where there is infectious disease to warn off an approaching steamer, thus avoiding the necessity of her remaining in quarantine at the next port of call. This class of message may not be numerous, but is of the greatest importance. As the utility of wireless telegraphy as a protection against maritime disasters is more realised a larger number of vessels will doubtless carry wireless apparatus. Maritime intelligence. Philipps, 2839.

The Convention expressly provides by Article 9 that "Radiotelegraph stations are bound to accept with absolute priority calls of distress from ships, to answer such calls with similar priority, and to take the necessary steps with regard to them." It is clearly desirable in the interests of humanity that such an obligation should apply to all stations without exception, and it is therefore made binding upon all stations whether naval or other. Smith, 98.

20. Sea telegraphy embraces (a) news services, such as the regular service of news sent out from a high-power station such as Poldhu for the benefit of ships crossing the Atlantic. But the most important are (b) private messages from or to persons on board ships, especially the large transatlantic liners. The greater part of this traffic is from ship to shore, about 20 telegrams passing this way to one from shore to ship. A service which provides for this development has the best chance of being remunerative. It is mainly on board the large liners carrying a considerable number of passengers that wireless telegraphy has so far been installed, apart from naval use. Sea telegraphy. (a) News service. Philipps, 2839. Smith, 27 (b) Private messages.

POLITICAL HISTORY.

Development of
the invention.
Smith, 29.
Gavey, 1793—4.

21. The progress of the invention was carefully watched by the British Government from its first entry into the field of practical application. When Mr. Marconi first came to England he was introduced to Sir William Preece, then Engineer-in-Chief at the Post Office, and experiments were conducted on Salisbury Plain, at the General Post Office, and in South Wales in 1896—7.

Heaton, 2741.
Lodge, 2117.
Marconi, 2885—7,
2890, 3080, 3082—
5

The early experiments of Mr. Marconi were made with the assistance and co-operation of the Post Office, and Mr. Marconi cordially acknowledged the good relations which existed between himself and the Post Office.

Admiralty
agreements.
Daniell, 601.

By the year 1899 the Marconi system had reached a point of development at which the Admiralty thought it desirable to obtain sets of the apparatus for experiments. In 1901 an agreement of a limited character was entered into between the Admiralty and the Company which had acquired the Marconi patents for the supply of Marconi apparatus for naval use.

In July 1903, the Admiralty entered into a further and more complete agreement with the Marconi Wireless Telegraph Company. The text of this agreement was laid before Parliament, and will be found in the Appendices. The agreement, which covers a period of 11 years (expiring in 1914), grants the Admiralty the right to the exclusive use of a long-distance station for twenty minutes every day, to priority over all other messages, to the supply of all apparatus at current prices, and to information concerning any improvement in apparatus or in methods of signalling. In consideration for this the Admiralty paid the Company £20,000, with £1,600 royalty for thirty-two existing installations, and £5,000 a year for the duration of the agreement.

Payne, 961 971.

The Committee have been informed by one of the Admiralty witnesses that since 1905 no new idea or technical advice has been offered to the Admiralty in accordance with this agreement, and that the Navy is not dependent for further developments in wireless telegraphy upon the Marconi Company.

Lloyd's
agreement.
Inglefield, 2030—
1, 2033, 2041.
Marconi, 3288.
Smith, 30—1.

22. Lloyd's has some 1,300 agents and sub-agents who, in addition to other important duties as representatives of that Corporation, are specially charged to transmit at once all the latest maritime intelligence from their respective districts. As the principal agency for collecting maritime intelligence, Lloyd's was necessarily interested in an invention intended to facilitate communication with ships at sea; and an agreement was signed in September 1901, expiring 1915, between Lloyd's and the Marconi International Marine Communication Company (an offshoot of the Marconi Wireless Telegraph Company), under which Lloyd's have the right to use Marconi apparatus at all their stations, and to engage to use no other, and also not to communicate with ships using any other system, or to permit the use of any other system at or in connection with their signal stations, the only important exception being the United States of America. Lloyd's entered into their agreement because at the time the Marconi system was the only one being worked on a commercial basis.

Inglefield, 2039,
2052—61.

The Committee have been informed that the agreement is a complicated one and has given rise to considerable differences of opinion and litigation as to its construction between the parties. As the result of litigation the agreement has been modified in several respects, but all the difficulties have not been removed, and further litigation is pending.

Inglefield, 2034
8.
Smith, 31.
Inglefield, 2041—
2.
Muskelyne, 2567
Philipps, 2839,
2844.
Smith, 34.

The agreement is of importance because of the restrictions which it imposes on Lloyd's against employing or communicating with any other system than the Marconi system. An instance was given when the general public interests were endangered and human life jeopardised owing to the refusal of the Marconi Company to allow intercommunication. In 1906 the United States steamer "Lebanon" was engaged to destroy a derelict said to be endangering vessels crossing the North Atlantic. While searching for the derelict the "Lebanon" got into wireless communication with the Marconi-equipped Red Star steamer "Vaderland" in the hope of getting information. The "Vaderland," however, declined to communicate.

Inglefield, 2044.
Johnson, 1208—10,
1225—7.

Lloyd's have also been unable to establish wireless telegraph stations at various British Colonies (Jamaica, Ceylon, Barbadoes, St. Helena, Perim, Straits Settlements, Mauritius, because these Colonial Governments make it a condition of their licences that intercommunication shall be permitted, if required by an International Convention, a condition with which Lloyd's are at present precluded from complying by their agreement.

Preliminary
Berlin Conference
1903.
Smith, 37.

23. By the year 1903 the increasing use of wireless telegraphy for maritime purposes had raised questions of International interest, and it had become evident that on many points regarding the interchange of messages International agreement would soon be urgently required. A Conference met at Berlin in August 1903, on the invitation of the German Government; Great Britain was represented at the Conference by delegates from the Admiralty, War Office, and Post Office.

The outcome of the Conference was that all the Great Powers, with the exception of Great Britain and Italy, agreed to certain proposals to be considered at a subsequent Conference for the International regulation of wireless telegraphy, including the obligatory exchange of messages between different systems.

24. The British delegates had been instructed to maintain an attitude of reserve, owing to the

position in which wireless telegraphy was at that time placed in the United Kingdom, the fact being that in the then state of the law the Government had not that complete control over wireless telegraphy which would have enabled them to enforce the provisions of the Convention. There was no legislation applying to wireless telegraphy; and wireless telegraphy being a form of telegraphy within the definition of the Telegraph Acts, came within the monopoly of the Postmaster-General only so far as concerned communications within the United Kingdom or its territorial waters. Whilst therefore the Postmaster-General was under the existing law able to impose conditions so far as regarded the exercise of wireless telegraphy inside the territorial belt, he had no control whatever over communications from the United Kingdom to ships or stations outside territorial waters, or in the reverse direction. Consequently, the Postmaster-General would not have been able to impose the conditions of the International Convention over communications between shore and ships, or *vice versa*, within the meaning of the definitions already explained. It was open to anyone to put up a wireless station provided it sent or received messages beyond the territorial waters.

Instructions to British Delegation.
Smith, 38.
See pars. 14-16, *ante*.
Marconi, 3133.

The conclusions of this Conference were set out in the *Procès-verbaux* and Protocole Final, or Minutes of the Conference and final Protocol, of the Preliminary International Conference of 1903, which were laid before Parliament.

25. The Protocol consisted of a draft proposed International agreement, to form the basis of a Convention to be discussed at a subsequent Conference, the Conference of 1903 having been regarded as merely a preliminary Conference.

Action taken before the second Conference of 1906.
Smith, 41.

It therefore became necessary for the British Government to consider the attitude which should be assumed with regard to these proposals, and in particular with regard to the proposal for universal compulsory intercommunication between different systems which formed the chief Article of the Protocol.

The matter was fully discussed in 1903-4 between the departments concerned, and in particular between the Admiralty, the Board of Trade, the Post Office, and the Cables Landing Rights Committee (a Committee on which the afore-mentioned Departments as well as the Foreign Office, Colonial Office, War Office, India Office, and Treasury, are represented under the presidency of the Parliamentary Secretary to the Board of Trade). After prolonged consideration it was finally agreed at a meeting held at the Admiralty on the 24th February 1904 between the Ministers of the departments principally concerned and their advisers: "That the principle of compulsory intercommunication should be accepted provided that such regulations should be drawn up together with provision for their enforcement as would, in the opinion of the Admiralty, be adequate for the purpose of effective control over the general transmission of messages to or from stations in British territory, and of preventing interference and confusion." The expression "compulsory intercommunication" meant that no ship or shore station should be at liberty to refuse a communication from another station solely on the ground that the system of wireless telegraphy employed was a different one. This decision formed the basis of proposals laid before the Cabinet in March 1904 for legislation to secure to the Government complete control of wireless telegraphy, more especially for naval considerations, but including also the power of enforcing the provisions of an International Convention. A Bill was introduced in the Session of 1904, and while it was before the House an agreement was made between the Post Office and the Marconi Companies to which reference will be made later.

Daniell, 507-8.
Smith, 42.
Smith, 48.

26. The Wireless Telegraph Act (which was passed in 1904 for two years only, and which was renewed in 1906 without modification for a further period of three years) prohibits the installation or working of wireless telegraph apparatus in the United Kingdom or on board British ships without a licence from the Postmaster-General. Its principal objects were, by regulating wireless telegraphy, to make it more useful for purposes of defence and general communication, and to provide against the growth of a monopoly in the hands of any one company. The Memorandum which was laid before the House in explanation of the Bill stated that the necessity of legislation depended in the first place on the extreme importance from the naval point of view of giving the Government control over all wireless stations in time of war or emergency, and secondly on the desirability of placing the Government in a position to enter into an agreement on the subject with other countries if it should be found expedient to do so.

Wireless Telegraph Act.
Smith, 49.
Smith, 47.

27. The second Conference met early in October 1906 at Berlin, and sat for about a month. The proceedings were recorded as usual in the form of *Procès-verbaux* or Minutes.

Second Conference of 1906.
Smith, 78-87

The documents signed at Berlin on the 3rd November 1906 consisted of:—

- (I.) The Convention.
- (II.) The Additional Undertaking.
- (III.) The Final Protocol.
- (IV.) The Service Regulations.

and are set out in the Appendices of this Report.

The above documents were signed by Great Britain except the Additional Undertaking, as explained in par. 15 *ante*.

These several documents are to be construed as one as regards their effective operation.

Delegates at the
Conferences.
Smith, 81-3.

28. It may be interesting to set down the names of the British delegates at both Conferences.

Name.	At the Conference of—
Mr. H. Babington Smith, C.B., C.S.I., Secretary of the General Post Office -	1906
Sir John C. (then Mr.) Lamb, late Second Secretary of the General Post Office	1903
Mr. J. Gavey, C.B., Engineer-in-Chief of the Post Office - - -	1903 and 1906
Captain H. L. Heath, R.N., Admiralty - - - - -	1903
Commander R. Payne, R.N., Admiralty - - - - -	1903
Captain the Hon. A. E. Bethell, C.M.G., R.N., Assistant Director of Naval Ordnance.	1906
Mr. R. J. Mackay, Principal Clerk in the Post Office - - - - -	1903 and 1906
Col. J. F. Daniell, R.M.L.I., Assistant Director of Naval Intelligence - -	1906
Lieut. F. G. Loring, R.N. - - - - -	1906
Col. R. L. Hippisley, C.B., R.E. - - - - -	1903 and 1906
Col. F. J. Davies, Assistant Director of Military Operations - - -	1906

THE CONVENTION.

Objects of Con-
vention under
six heads.

29. The primary object of the Convention is to facilitate ship and shore communication, and its main provisions may be classified under the following heads :—

- (i.) The acceptance and transmission of telegrams.
- (ii.) The adoption of uniform rules of working.
- (iii.) The provision of the means of collecting charges and settling accounts between the different countries.
- (iv.) Arrangements for the publication of all information necessary for such intercommunication.
- (v.) Rules to prevent interference and confusion in working, with adequate provisions for their enforcement.
- (vi.) Provision that, with certain exceptions, intercommunication must not be refused on account of differences in the systems of wireless telegraphy employed.

A proposal was brought forward by the representatives of the United States to extend the scope of the Convention so as to include ship to ship communication. The British Delegation opposed this suggestion, mainly on the ground that the question had not been considered by the Preliminary Conference of 1903, and the time was not ripe for its international regulation. An "Additional Undertaking" was entered into by certain Powers rendering it obligatory on ships belonging to those Powers to intercommunicate, and providing that non-signatory Powers (including Great Britain) may at any time adhere by adopting certain procedure.

Evidence was given to show that compulsory ship to ship communication from a commercial point of view would be a distinct advantage. Although ship to ship communication is not rendered obligatory by the Convention, yet interference would be avoided because a ship's licence to carry wireless telegraph apparatus would compel her to obey all the regulations of the Convention.

By the application of Articles 1 and 2 of the Telegraphic Convention of St. Petersburg certain general obligations are imposed on all countries. The effect of these two Articles is that all countries adhering to the Radiotelegraphic Convention, and all ships of adhering countries which are open to general public correspondence are required to accept and forward the correspondence of all persons alike. It is a general obligation of freedom of correspondence for the public, the adhering countries undertaking to adopt all necessary measures to ensure the secrecy and prompt dispatch of messages.

Article 14 of the Convention and Article IX. of the Regulations deals with a case where a radiotelegram is transmitted in part through stations or over the wires of non-adhering countries. The object of the British delegates in dealing with these Articles was to secure as far as possible

Philipps, 2854.
Gavey, 1927-9,
1931.

(1) Acceptance
and transmission
of telegrams.

freedom of transmission between an adhering and a non-adhering country. Great Britain had a special interest in this owing to her Colonies. Each Colony is at liberty to adhere or not as she thinks fit, and the regulations, as originally drafted, would have left it open to other countries to refuse the further transmission of a radiotelegram received from a ship at a coast station of a non-adhering Colony and sent on through the United Kingdom. This would have placed Great Britain in the invidious position of being unable to secure further transmission of a telegram coming from one of her own Colonies. Further, under the draft proposals a telegram originating from a non-adhering country might have been penalised in certain cases by double rates. Both the above boycotting and penalising proposals were withdrawn from the draft Convention at the instance of the British delegates.

30. The rules of working laid down coincide, so far as circumstances permit, with those of the (2) Rules of Telegraph Convention. They embrace the manner of calling from one station to another, of working: answering calls, the order and nature of the service indications, the signals to be used, the form of the telegrams, &c. If this were not done, different countries would adopt different signals and methods, Arts. X., XI. of the Regulations. and confusion would result. Arts. XV., XVI., XVII. of the Regulations.

The rules of working, as regards the actual exchange of telegrams between ship and shore stations, or *vice versa*, are contained in Articles XVIII. to XXX. of the Regulations. As a general rule the ship station calls the shore station and not the shore station the ship. The ship station must avoid breaking in upon communications already in progress, and if the call is unsuccessful, it must not be renewed at too short an interval. An unsuccessful call, after being thrice repeated, must not be renewed till after an interval of half an-hour, except of course in cases of distress. Article XXI.—The shore station decides the order of priority, for which purpose the ship furnishes the necessary particulars as to course, speed, &c., specified in Article XXII. of the Regulations. This is the procedure at present in use in the Maaconi Stations, and has been found to work very well in practice.

Article XXX. of the Regulations provides that ships should communicate with the nearest coast station. This provision is of considerable value to Great Britain, having regard to the crowded condition of the Channel, to the number of stations already existing on the South Coast and their proximity to the main lines of traffic in the Channel; whilst throughout the world it secures to British possessions the enjoyment of the advantages arising naturally from their geographical position. Daniell, 672A. Payne, 958.

The Regulations regarding Charges and Accounts are comprised in Article X. of the Convention, and Articles XII., XIII., XIV., XXXV., XXXVI. of the Regulations. The principal object secured is that the whole charge should, in all cases, be collected from the sender wherever the radiotelegram may be handed in, and a system of accounting has been framed which renders this possible. (3) Charges and accounts.

Under Article IV. of the Regulations a list is prepared and circulated by the agency of the International Bureau at Berne, furnishing particulars regarding each station, such as name, nationality, geographical position, call signal, normal range, wave length, nature of service performed by the station (*i.e.* general public correspondence, restricted public correspondence, long distance public correspondence private or special correspondence), hours of service, &c. (4) Interchange of information.

The International Bureau will be merely a branch of the Bureau of the International Telegraph Union, situated at Berne, of which the Director is Swiss. It has no initiative or executive power, and holds a strictly subordinate position, its functions being practically confined to the collection and circulation of information. Daniell, 674-5. Gavey, 1921-3.

In this connection it is well to observe that the Regulations (Article IV. (2)) permit—but do not require—the publication of information regarding naval stations or other stations not open for public correspondence. When it is to the interests of ships of war or naval stations to communicate with other ships or stations they are entitled to do so.

Apart from the Articles and Regulations already referred to, which are in many instances adaptations of the Telegraph Convention, special provisions were required to meet the circumstances peculiar to radiotelegraphy. (5) Prevention of interference and confusion.

(a) Excess of power.

Gavey, 1811.

The range of effect, and therefore the range of possible disturbance, is greater the more the energy used. It was, therefore, desirable to lay down that stations should not use a greater amount of energy than was necessary for the particular purpose in hand. Article XXVIII. of the Regulations provides that "all stations are bound to exchange traffic with the minimum expenditure of energy required for obtaining effective communication." A specific limitation of the power to be used by ships is contained in Article VI. of the Regulations.

(b) Uniformity in methods of working traffic; use of International Code.

Daniell, 664.

The Rules described above under (2) secure uniformity of working and contribute largely to the prevention of interference and confusion, especially by the regulation of the order in which ships communicate.

The latter is to prevent confusion arising from operators of different nationality not knowing each other's language; in such cases the International Code is to be used. (iii. *Procès-verbaux* and Article of the Regulations.)

(c) Efficiency of apparatus and operators on ships.

Inefficient apparatus or operators on board ship would be a fruitful source of confusion. To prevent this, Article VI. of the Regulations lays down that every ship and shore station Daniell, 666. Gavey, 1811.

must be licensed by the Government to whose authority the ship is subject, and that no ship station shall be licensed unless the system used is a syntonized system capable of transmitting and receiving at a reasonable speed (12 words a minute amount specified), and not using an excessive amount of power. Further, every ship fitted with wireless apparatus must also have a telegraphist licensed by the Government to whose authority the ship is subject; and in order to allow him to be licensed he must have a competent knowledge of the adjustment of the apparatus, able to transmit and read by sound at a speed of at least 20 words a minute, and must have a knowledge of the Regulations applicable to the exchange of radiotelegraphic traffic. In addition, his certificate testifies that the Government has bound the telegraphist to an obligation of preserving the secrecy of correspondence.

(d) Control of operators.

Article V. of the Regulations prohibits useless and superfluous communications between operators.

Article VII. prescribes the course to be taken in cases of breach of the regulations. An administration which has information of a breach of the Convention or Regulations committed at a station which it has authorised, is required, after inquiry, to take the necessary disciplinary steps, and if need be to withdraw the certificate of the operator or the ship.

(e) Appropriation of specific wave-lengths.

Articles II. and III. of the Regulations specify two wave-lengths of 300 and 600 metres for the service of general public correspondence. These lengths are sufficiently wide apart to admit of the establishment of shore stations within a reasonable distance of one another and yet not likely to interfere with each other if fitted with the most modern apparatus. The normal wave-length on board ship is to be 300 metres, so that any ship may at all times place itself in communication with any other ship within range. Wave-lengths between 600 and 1,600 metres are excluded from commercial use and entirely reserved for Government purposes.

(f) General obligation not to interfere.

Besides the above special regulations, Article 8 of the Convention requires that the working of radiotelegraph stations shall be organised, as far as possible, in such a manner as not to interfere with the working of other stations of the kind. This general obligation extends to all wireless telegraph stations without exception, and not merely to the commercial stations to which the Convention as a whole applies.

31. The Marconi Company urged before the Committee that they were able to secure a strict discipline under their own stringent regulations, and that under the proposed Convention a loose, dilatory and cumbrous system of International control would be substituted. To this it was replied that the ships in question would for the most part belong to a limited number of maritime countries, all of which would be interested in maintaining an efficient service, and that the necessary communications would pass directly between the administrations concerned without passing through the diplomatic channel. There does not appear, therefore, to be any reason why excessive delay should be anticipated; and, in any case, Article VII. of the Regulations provides that in the event of repeated breaches of the Regulations by the same ship the shore stations can be instructed to refuse communication. In case of difference between two adhering countries, there is an appeal to arbitration, but in the meanwhile the ship may be black-listed. As regards shore stations, they are within direct control of their respective Governments, and the same difficulties do not arise as in the case of ships, which, being moveable, are a more dangerous source of confusion.

Much has been made of the possibility that an irresponsible ship may cause confusion and interference in defiance of the Regulations. But this could happen under the present circumstances, with this material difference, that if the Convention were in force the Government of every ratifying country would be bound in the event of such a violation to withhold a licence.

It may be pointed out in this connection that the organisation provided by the Convention is international only so far as it binds each of the Signatory Powers to lay down and enforce specified regulations for the control of the wireless stations on their territory and their ships, so as to facilitate intercommunication and to avoid as far as possible confusion and interference. Thus, though communications from country to country will be required for bringing to notice breaches of the regulations, the machinery for enforcing the regulations in each case is national and not international.

The Committee elicited that the Marconi Company maintained their discipline by a system of bonus to their operators. They are of opinion that, other things being equal, a system of bonus is a less satisfactory method of securing discipline than a system of penalty internationally directed and nationally controlled.

32. A strong contention was raised by the witnesses who appeared on behalf of the Marconi Company, and by Mr. Marconi himself, that whereas the Convention specifies wave-lengths for particular purposes, other essential factors, namely, "Amplitude" and "Damping" have been ignored, and that therefore the treatment of the matter had been incomplete and unscientific.

The Committee, accordingly, have endeavoured to examine closely into this complaint and to arrive at some conclusion as to the different types of waves which the above terms describe. With this object the Committee had an opportunity of witnessing a demonstration at the Post Office, where these different types of waves were illustrated by Mr. Gavey.

Gavey, 1806.
Payne, 955-6.

Enforcement of
regulations.
Daniell, 667.
Gavey, 1812.
Marconi, 3127,

Daniell, 667-684.
Gavey, 1799-1800
Lodge, 2290.

Maskelyne, 2646.

Marconi
objections.
Marconi, 2895-9,
2908, 2915, 2921,
2957.
Types of waves.
Gavey, 1950-4.

Amplitude is the vertical height of the wave; or the potential which the wave peaks reach to at each oscillation. It is the size of the rise and fall. Gavey (demonstration).
Marconi, 2896, 2907.

Damping is the dying away of the wave train.

(a) A highly damped train is one where the train dies away in two or three oscillations Gavey (demonstration).
(b) A moderately or feebly-damped wave train is one that persists for ten, fifteen, or twenty oscillations.

(c) An undamped or continuous wave is one that persists and maintains a continuous (more or less) series of uniform oscillations.

33. The highly damped wave (a) was that used when Mr. Marconi first introduced his invention, wherein no attempt was made at tuning, and is the type which Sir Oliver Lodge described as the "snap" or "whip-crack" system. This method enables considerable distances to be reached without discrimination or selection and gives the largest amount of interference with partially tuned systems—that is to say, the highly damped wave interferes more with partially tuned systems than the partially damped or continuous wave would do, and is practically prohibited by the Convention for use between ship and shore. The highly damped wave.
Lodge, 2121, 2183, 2220.
Marconi, 2888-9.

34. As regards type (b). Article VI. of the Regulations specifies the use of a syntonised system on ships, which implies the employment of a moderately or feebly damped wave. Article XXVIII. limits the amplitude, not by any attempt to define the height of the wave, but by limiting the power to be used to the minimum necessary to establish communication, so as to avoid interference with neighbouring stations. The feebly damped wave.
Marconi, 2917-8, 3008-10.
Gavey.

Article 6 (c) of the Regulations provides: The power imparted to the radiotelegraphic apparatus must not in normal circumstances exceed one kilowatt. Power in excess of one kilowatt may be used if the ship finds it necessary to exchange messages at a distance of more than 300 kilometres from the nearest coast station, or if, by reason of intervening obstacles, communication can only be effected by an increase of power. Payne, 972.

35. Undamped waves (c), also called continuous or persistent waves, are produced by various methods, one of which is known as the arc system, the two former types of waves being variations of the spark system. This third type of the undamped wave refers to a system which, according to the impression derived by the Committee from witnesses who spoke on it, is still in its infancy, but undoubtedly in some respects an improvement on the spark system. No evidence was given to show that a single station on this system is yet in commercial operation. The undamped wave.
Maskelyne, 2551-2.

36. The Conference refrained from dealing in a more detailed manner with questions relating to amplitude and damping, because they considered at such an early stage it would have been injudicious to have imposed restrictions which might conceivably have impeded the progress of the science. Had the contention of the Marconi Company been anticipated, it appears to the Committee that the Company might then have had greater reason for objection, in that embarrassing limitations might have been inadvertently introduced. Provisions for regulations.

37. As regards the question of wave lengths, the Marconi Company raised the double objection first to the naval appropriation of wave lengths between 600 and 1,600 metres, secondly to the commercial use being restricted to 300 and 600 metres. Marconi objections.
Marconi, 2969, 2993.

(a) With reference to the first objection it is sufficient to state that the naval delegates were unanimous on the question of the reservation of these wave lengths to enable the respective navies to carry on wireless telegraphy with the least interference. The claims of a commercial company even if well founded, must give way to considerations of the highest national importance. Naval representatives unanimous.

It is clear that whether there be a Convention or not, it will obviously be the duty of the Government of any nation to specify such wave lengths to be used at each station as will safeguard all national interests, and to prohibit the use at commercial stations of wave lengths which it is desired to reserve for naval purposes.

(b) As regards the second objection it is not the fact that only two wave lengths are available for commercial use. Article II. of the Regulations provides:—

Two wave lengths, one of 300 and the other of 600 metres, are allowed for general public correspondence . . . nevertheless each Government may authorise the use at any coast station of other wave lengths for the purpose of providing a long distance service, or a service other than that of general public correspondence, established in accordance with the provisions of the Convention, on condition that these wave lengths do not exceed 600 metres or do exceed 1,600 metres. Commercial wave length not restricted to two.

Therefore at "exempted" stations and at stations with a restricted public service any wave lengths except those between 600 and 1,600 metres may be authorised by the respective Governments.

Evidence was given to satisfy the Committee that the prescribed wave lengths of 300 and 600 metres, taken in connection with the exemptions and restrictions provided for in the Convention and Regulations, afforded sufficient elasticity for commercial purposes. Maskelyne, 2598 - 2607.
Payne, 955

Muirhead, 2353-5.
Alleged obstacles
to invention.

38. The Committee desire to lay emphasis on the following position. Marconi witnesses were closely cross-examined on the alleged oversight in not including provisions regarding amplitude; and on it being shown that the provisions above set out met every contingency, then raised the objection that these provisions would not be effective, and that Governments generally would not feel inclined to encourage improvements. That is to say the Governments, having Internationally recognised the existing systems which admit of intercommunication would discourage new and improved systems which would not at the outset intercommunicate; that the very fact of there being control, would stereotype existing systems and sterilise invention. The British Government, for example, would deliberately oppose improvements in wireless telegraphy in order to arrest an art in its incomplete state.

The Convention deals with things as they are, and regulates wireless telegraphy as it stands. It leaves the door open for improvements, and there is no reason to assume that any Government would desire to embarrass science by artificial obstacles. The British Government itself—indeed, every Government—has the greatest interest in the development of this art, and must be manifestly concerned in seeing it approach to perfection.

Intercommunica-
tion different
systems.

39. Intercommunication between different systems.

The Committee have had to give close attention to this point, which on the evidence proved to be controversial and in many respects the most important arising under the Convention. The question arises in consequence of the policy pursued by the Marconi Company of refusing to allow any ship or shore station fitted with Marconi apparatus to enter into communication with a station of any other system. The reason for this policy put forward by the Marconi witnesses was that by unity of control they hoped to secure more effectually the observance of their rules and the avoidance of confusion and interference; but evidence was also given to show that they had in view the establishment, as far as possible, of a general monopoly for their system—since being in possession of shore stations at many of the most important points of the coast, they hoped to compel ships to adopt the Marconi system in order to communicate with those stations, and other shore stations to adopt the same system in order to communicate with the ships.

Under Article 3 of the Convention coast and ship commercial stations are required to exchange radiotelegrams reciprocally without distinction of the radiotelegraphic system adopted by the station. For example, a Marconi shore station would be deprived of its present power to refuse to interchange messages with a ship fitted with the De Forest or Lodge-Muirhead apparatus merely because the apparatus was not Marconi apparatus, and conversely a ship equipped with Marconi apparatus would be required to interchange messages with a shore station irrespective of the apparatus with which it was furnished.

Gavey, 1801-3.
Lodge, 2135,
2138-9.

Muirhead, 2410-
2418.

Intercommunica-
tion between arc
and spark
systems.

40. It was generally admitted that all existing spark systems intercommunicate readily, the fact being that the so-called systems are really different methods of one system.

A considerable doubt arises, however, in regard to the present possibility of commanding intercommunication between the arc (or continuous wave) and the spark systems.

The doubt is due to the fact that no arc systems are in operation as commercial stations, and therefore it has been difficult to prove or disprove the possibility of intercommunication in actual practice.

Mr. Maskelyne stated that he believes it can be done, but (as he describes it) only by elevating the inferior spark system to the standard of the arc, or by degrading the arc system apparatus to the level of the spark. This he deprecates, contending that the superiority of the former will at no distant date make it the prevalent system throughout the world.

Sir Oliver Lodge stated that by a careful system of syntonization—by the superior perfection to which he has brought the tuning of his method—he can remove all difficulties in the way of intercommunication.

Mr. Marconi and Professor Fleming hold that there is considerable physical difficulty and question whether for practical purposes it can be done at all.

Sir William Preece asserted that there is no difficulty.

Commander Payne, the Admiralty wireless expert, speaking from actual experience, claimed that he can show there is no physical difficulty in making an undamped-wave system, which produces greater selectivity, intercommunicate with a moderately damped-spark system, and that, as apparatus could easily be tuned, with suffering depreciation, to make the damped and partially damped wave work together satisfactorily, so it might equally be anticipated that the partially damped wave may be made to work with the undamped wave without serious difficulty.

Maskelyne, [2578.

The Committee do not feel themselves competent to draw any deductions from the conflicting views of such distinguished scientists. They must, however, point out that the Convention clearly provides by Article 4 of the Final Protocol for the introduction of new systems, even if they cannot intercommunicate with existing systems. The terms of this article are as follows.—

“It is understood that, in order that scientific progress may not be impeded, the provisions of Article 3 of the Convention do not prevent the possible use of a system of radiotelegraphy incapable of communicating with other systems, provided always that this incapacity is due to the specific nature of the system, and is not the result of arrangements adapted solely with a view to prevent intercommunication.”

The Convention opposes no obstacle to the experimental and practical development of all new inventions, and if the continuous-wave system is proved to be superior to any of the spark systems it will inevitably displace the latter and become universal. In the meanwhile the Convention

provides for present intercommunication and does not in any way prejudice the arc system or any other that may be devised. Indeed, such systems will enjoy all the advantages and protection of the Convention.

Further, under Article 1 of the Regulations, it is laid down that the choice of apparatus is unrestricted and the installations should keep pace, as far as possible, with scientific and technical progress.

41. Under Article 22 of the Convention it is laid down that any contracting party can withdraw from the Convention by giving a year's notice, but this in no way disturbs the Convention as regards the remaining parties. Assuming it is ratified, the Convention will come into operation on and from the 1st of July, 1908, and subject to the foregoing provision will remain in force for an indefinite period.

Adhesion and denunciation of the Convention. Payne, 965.

IMPERIAL NAVAL AND COMMERCIAL INTERESTS.

42. An important provision was inserted at the instance of the British delegates (in Article 5 of the Final Protocol) reserving to India and all the Colonies perfect freedom of action, and making it clear that (before or after it comes into operation) each may separately adhere to or withdraw from the Convention as they think fit, independently of the mother country or any other Colony. A Crown Colony need not adhere if it is considered detrimental to its interests, India and the self-governing Colonies were consulted generally as to the draft Convention, but no wish was expressed by any of them to be represented directly at the Conference.

Colonial and Indian interests. Johnson, 1211. Smith, 182.

Johnson, 1198. Heaton, 2721.

The correspondence with the self-governing Colonies was laid before the Committee, and is included in the appendices.

Objection has been raised in evidence to the proportion of votes at future Conferences to be allotted to Great Britain on behalf of her Colonies.

Voting at Conferences.

The question of voting power was approached by the Conference from the point of view of the two existing precedents, viz., the Postal and Telegraph Conventions. Two different systems are in force in the case of these two Conventions. Under the Telegraph Convention each country may claim a vote for any Colony or Dependency which adheres, and which possesses a separate telegraph administration. This principle has the drawback that it enables votes to be claimed on behalf of Colonies whose size and position are not of sufficient importance to justify a vote.

Johnson, 1212-24. Smith, 365-75.

Under the Postal Convention the votes are assigned by name to those Colonies which the Conference as a whole considers of sufficient importance to claim a vote. The latter of these alternatives was adopted by the Conference. Great Britain proposed a maximum of seven votes for any one country with its colonies, but the Conference ultimately decided on a maximum of six, the number at present exercised by Great Britain under the Postal Union.

Johnson, 1238. Smith, 3656.

The Colonial votes will be allotted at the next Conference which will meet in London in 1911, and a special provision was secured by the British delegates so that the Colonial representatives, then admitted, will be enabled to deliberate and vote at that Conference. There should be no difficulty in Great Britain being able to sustain her claim for the maximum number of votes owing to the importance of her Colonies.

This principle of voting has been shown to work satisfactorily in the case of the Postal Convention, and in view of the moral influence Great Britain can always bring to bear upon International Conferences, there should be no apprehension of a deadlock or of any adverse vote being arbitrarily cast against her interests. In the unlikely event of such an occurrence Article 22 of the Convention can be put into force by the withdrawal of Great Britain from the Convention at any time with a year's notice.

An advantage claimed for the method of voting decided upon is that it will enable the Colonies possessing votes to have separate representation at the Conference, and to give full effect to their own views. Incidentally it may be mentioned that if Egypt adheres she also would have a vote.

Smith, 378.

43. The Committee are strongly impressed with the all-essential consideration that Naval interests are fully protected and provided for by the Convention.

The evidence shows that, since February 1904 (when the matter was first fully considered by the Admiralty with the other Departments of the Government principally concerned), the policy of the Admiralty has been the same, namely, that the principle of compulsory inter-communication should be accepted, provided that such regulations should be drawn up, together with provisions for their enforcement, as would in the opinion of the Admiralty be adequate for the purpose of effective control over the general transmission of messages to or from stations in British territory and of preventing interference and confusion. To this another condition was added, as the result of the further and detailed consideration given to the question in the summer of 1906, in view of the forthcoming Conference named, that the Government should have a discretionary power of exempting particular stations from the obligation to intercommunicate.

Daniell, 700, 728, 834. Davies, 544, 922. Gavey, 1992-4. Payne, 958, 983.

The British representatives, throughout the Conference, were guided by instructions calculated to attain the paramount object of full protection for naval interests; and they were instructed not to sign the Convention unless it were modified in such a manner as to satisfy the above-mentioned conditions. The Admiralty witnesses before the Committee, speaking on behalf of the Board of Admiralty, stated emphatically that the objects the Admiralty had had in view were fully secured; and that from the point of view of Naval interests, ratification was desirable, while a refusal to ratify would be seriously prejudicial to these interests.

The following are the points to which the Admiralty attached the greatest importance:—

(a) Naval and military stations are placed outside the Convention by Article 21 except only in respect of Article 8 (general obligation to avoid, *as far as possible*, interference with other stations): and Article 9 (ships in distress). The Admiralty considered these two obligations to be desirable.

(b) Processes of secret working are not to be divulged.

(c) Supplementary secret apparatus may be set up at stations open for public correspondence.

By Article 7 of the Convention it is allowed, in addition to the apparatus for public use, to make arrangements for radiotelegraphic transmission of a special character, the particulars of which need not be published. This secures facilities for experimental work with due regard to secrecy should it be required, *e.g.*, to try any new system at a public general station.

(d) A reservation to which the Admiralty attach much importance was introduced into the Convention at the instance of the British delegates.

By Articles II. and III. of the Final Protocol the Government have reserved full discretion to exempt such commercial coast stations as they may think fit from the obligation to intercommunicate, subject only to the condition that other sufficient provision for general public correspondence in the region affected must be maintained or permitted.

It was considered essential to retain this right of exemption for the following reasons:—

(i) The system of general intercommunication was felt to be necessarily to some extent experimental. It is possible that, at any rate for a short time at the outset, it may lead to some confusion in crowded waters. The power of exemption will enable non-intercommunicating stations to be maintained in suitable positions, for such periods as may be found necessary.

(ii) It may be found convenient in some cases for experimental purposes to have stations communicating only with the same system.

(iii) If, as the use of wireless telegraphy increases, the telegraphy at particular points becomes too great to be dealt with by a single station, the provision of an "exempted" and a "non-exempted" station will provide a ready means of dividing the traffic.

(iv) Generally, the power of exemption gives greater flexibility to the proposed arrangements, and provides for unforeseen developments.

The British delegates were therefore instructed not to accept the principle of general intercommunication unless it were qualified by the power of exemption. A declaration to this effect was made by them at the first meeting of the Conference, and their requirements were met by the insertion of Articles II. and III. of the Final Protocol, whose purport has been indicated above.

Certain countries which had strongly supported the principle of intercommunication without any exception inserted a declaration that they did not propose to avail themselves of this power. The Committee consider that there is no foundation for the suggestion that this renunciation on the part of some countries affects the utility of the provision for those countries which may wish to avail themselves of it.

There is no provision in the Convention making it obligatory on the Government to provide a second station for general public correspondence alongside a naval station. This is only made obligatory when a commercial station is exempted and therefore withdrawn from general public correspondence; whilst it rests in the power of the Admiralty if they deem it desirable to allow a naval station under certain conditions to carry on commercial correspondence.

(e) Stringent regulations have been drawn up, together with provisions for their enforcement, to the satisfaction of the Admiralty, for the purpose of securing effective control over the general transmission of messages to or from stations in British territory, and of preventing interference and confusion.

The regulations which were proposed by the British delegates to meet this object, and which had been carefully drawn up in accordance with the views of the Admiralty, were accepted by the Conference without any material alteration.

(f) One essential consideration from the Imperial point of view is, that as many as possible of the shore stations of the world should be on British territory, and, therefore, able to be brought, in times of emergency, under the control of the British Government.

Much evidence was presented to the Committee as to the probable effect of the Convention from this point of view. It appears to the Committee that if shore stations on British territory are rendered freely available for communication with the ships of all countries, without restriction as to the system employed, the natural advantages arising from the geographical position of the British Islands and various British possessions will draw traffic to British stations and will provide a commercial inducement for the erection of such stations. If, on the other hand, a policy of non-intercommunication is supported, and foreign ships wishing to communicate with British stations are required to comply with unacceptable conditions, there will be a direct and powerful motive for the erection of stations on foreign territory.

(g) If Great Britain adheres to the Convention, in war time she would derive benefits from having all wireless telegraph stations on her shores, at home and abroad, available for

communicating to any one of her ships (whether Naval or Mercantile Marine) at will, independently of the systems in use, and the commercial ships would be in a state of organisation which would allow of their being used for naval purposes if required. It is to Great Britain's advantage to increase the development of wireless telegraphy for commercial purposes so as to be able to utilise her large Maritime Marine for Naval requirements in war time as stated above.

(h) The reservation of the use of wave lengths between 600 and 1,600 metres for naval purposes. This was considered of importance by the Admiralty. It does not mean that the Navy cannot use wave lengths below 600 or above 1,600 metres; but leaves this range free from interference by commercial installations. Daniell, 653.
Gavey, 1806.
Payne, 957, 992.

(i) A period of nearly two years was reserved before the Convention was to come into force. This gives the Government, and especially the Admiralty, time to consider and decide on which stations are to be exempted and where others are considered necessary in substitution, and to take such steps as may be required. Payne, 965.

(j) In time of war or national emergency, all or any wireless stations on British territory can be occupied or closed at the discretion of the Government, stringent powers in this respect being contained in every licence granted by the Postmaster-General. Articles 7 and 8 of the St. Petersburg Convention, which are applied to wireless telegraphy by Article 17 of the present Convention, give International sanction to such action. Daniell, 637-9.
Davies, 537-8.

44. Approaching the question from the point of view of British commercial interests, there can be no doubt that the freest utilisation of wireless telegraphy is to the general interest of commerce and of the Mercantile Marine. Commercial and
Mercantile
interests.

It would be a manifest advantage for commercial purposes that every British ship fitted with any form of existing apparatus should be able to communicate freely with the greatest number of other ships and land stations throughout the world. Maskelyne,
2567-9.
Philipps, 2838,
2841, 2843,
2870-2.

Evidence was laid before the Committee giving conspicuous illustrations of the commercial inconvenience due to the exclusive conditions attaching to the use of Marconi apparatus. The Royal Mail Steam Packet Company's ships are fitted with De Forest apparatus, which enables them to communicate on their line of services from the River Plate to New York with that and other systems established along these coasts, but on entering the English Channel, where only Marconi stations are established, these ships are refused intercommunication. On the other hand, if these steamers were fitted with Marconi apparatus they would then be debarred from communicating with the stations along the line of service mentioned above, and even with other ships of their own line fitted with the De Forest apparatus. Maskelyne,
2567-9.
Marconi, 3089-90,
3093-4, 129-32.
Philipps.

The Convention removes this obstacle to intercommunication, a result which can only be attained by International agreement.

45. Ship and shore communication is essentially an International matter commercially, and its development has reached a stage at which International agreement becomes indispensable as in the case of the Postal and Telegraph Services. As the use of wireless telegraphy becomes more widely spread its importance to our Mercantile Marine can hardly be overestimated. Non intercommu-
nication injurious
to commercial
interests.
Maskelyne,
2613-22.

It follows, therefore, that any artificial restrictions imposed in the interests of any particular company are to the detriment of commercial and mercantile interests. Under the present Marconi conditions, which prohibit intercommunication with other systems, a large and increasing number of ships and stations using other systems are excluded from the advantages of intercommunication.

There is little room for doubt that free intercommunication (properly safeguarded) and International control will at an early date become inevitable. It is clear from the evidence that if Great Britain refuses to ratify, the Convention will be ratified by the other Powers notwithstanding, and that Great Britain would subsequently be constrained to come into the Convention, possibly under much less favourable terms. Davies, 547, 549.
Daniell, 633.
Gavey, 1821.
1832, 1904.
Lodge, 2237,
2258-9.

Among other points secured by the British delegates in favour of commercial interests may be mentioned:—

- (a) Regulation 39 provides that arrangements are to be facilitated "for communicating to maritime news agencies information respecting wrecks and shipping casualties, or of general interest for purposes of negotiation." This specially affects Lloyd's, who have already arranged for reports of casualties and other maritime intelligence from foreign wireless stations to be forwarded to them. If Great Britain declines to ratify, foreign Governments may by way of retaliation decline to supply Lloyd's with maritime intelligence, and may possibly also cancel the privileges granted to Lloyd's at foreign semaphore stations, which have been of great advantage to shipowners, consignees, charterers, and all interested in ships and cargoes. Inglefield, 2045,
2066-74.
- (b) Omission of the draft Article which sought to require all adhering countries to "boycott" systems refusing to intercommunicate.
- (c) The Arbitration Article was rendered optional instead of compulsory.

GENERAL OBSERVATIONS.

46. The above paragraphs deal with radiotelegraphy as a matter of National and International concern. It remains for the Committee to touch upon a subsidiary matter, but one that requires

Patent rights.
Marconi, 3024,
3061

Maskelyne, 2567,
2576, 2629, 2642.
Marconi, 3301.
Muirhead, 2353-5.

Marconi, 3046,
3061.

Post Office
agreement.

Daniell, 605.
Smith, 440.

consideration, namely, the position of the Marconi Company. The Marconi Company, the only opponents to the Convention who have appeared before the Committee, cannot be regarded as having any claim to a monopoly of wireless telegraphy; although, under present conditions, they have secured what amounts to something approaching a monopoly in respect of Great Britain, Italy, and Canada. As regards Great Britain the position is due to the fact that for various reasons, and pending a settlement of the policy to be finally adopted, the Postmaster-General has hitherto refrained from issuing licences for competing stations on the South Coast of England and Ireland. Had the Marconi system been the only one in existence there would still have been necessity for regulations for the proper working of the system through inter-governmental control; but this necessity becomes accentuated by the existence of other systems with stations working throughout the world.

As evidence of the fact that free competition even in the crowded waters of the English Channel was contemplated, Clause 3 (1) and (2) in the Post Office Marconi Agreement of 1904 (inserted at the instance of the Company) stipulated that if the Post Office licensed stations at which any system of wireless telegraphy other than the Marconi system is installed, every licence or permission granted by the Government should contain "suitable conditions with the object of securing non-interference with other wireless telegraph stations"; "provided that such conditions shall not unreasonably require the Companies to change the position of any station, or to make any change in apparatus or arrangements which have already been adopted by them *bona fide* for the purpose of communication, and which for the purposes of each station are in conformity with the best and most efficient methods at their disposal for preventing interference. The Companies shall in any case work their stations as far as possible so as not to interfere with the working of other stations."

In 1904 the Marconi Company entered into a formal agreement with the Postmaster-General which conferred upon them certain rights, privileges, and advantages, and which contained the following:—Clause 10: "In the event of His Majesty's Government adhering for the United Kingdom to a Convention based substantially on the stipulations contained in the Protocol of the recent Berlin Conference on Wireless Telegraphy, the Companies undertake, if required by the Government, to observe in the United Kingdom and on British ships the provisions (except Article 6) of the Convention, and of any detailed regulations made thereunder for carrying these provisions into effect, and in particular and without prejudice to the generality of the foregoing undertaking the Companies undertake, if required by the Government, in relation to shore stations in the United Kingdom and ships equipped with Marconi apparatus for ship and shore messages, to accept (without prejudice to the patent rights) the obligation to interchange messages with ships and shore stations in the United Kingdom respectively equipped with other apparatus, and to relieve the Admiralty and Lloyd's and all other persons with whom the Companies have contracted from any obligation arising under their contracts to refuse to interchange messages with ship or shore stations in the "United Kingdom so equipped, or to make any compensation in respect of the interchange of such messages."

The Marconi Company propose to make use of the words "without prejudice to their patent rights" in order to evade the obligation to intercommunicate which the above clause places upon them.

The Marconi Company contend that an obligation of compulsory intercommunication between different systems under an International Convention must result in an infringement of their patent rights, and therefore that the expression in the Post Office Agreement "without prejudice to their patent rights" continues to put the Company in a superior position throughout the period of the agreement to any arrangement, international or otherwise, involving intercommunication that may during that period be brought.

This contention may or may not be found sound in a court of law, and the Committee feel precluded therefore from expressing any opinion upon it; but it appears obviously inconsistent with the intention of the Parties when making the agreement. The wording of the clause referred to clearly indicates the desire of the Post Office to contemplate an International Convention, and seems to dispose of the contention that an International Convention would be a reversal of a policy which the Marconi Company must have contemplated at the time of signing the agreement.

If this intention was in the minds of the Marconi Company when they negotiated the agreement it would appear to be open to grave criticism in that that they are now endeavouring to evade the main condition which led the Postmaster-General to enter into the agreement granting them advantages which they have enjoyed, still enjoy, and propose to retain.

Advantages to
Marconi Com-
pany of inter-
communication.
Gavey, 1999.

47. There appears no doubt from the evidence placed before the Committee that even if Great Britain declines to ratify the convention the other Powers will do so. The effect of this would be that under Articles 1, 2, and 3 of the Convention, assuming that the Marconi Company maintained the policy of non-intercommunication, Marconi apparatus would have to be removed from all ships and stations belonging to signatory nations, thus seriously diminishing the extent of the Marconi organisation on which the Company lay so much stress. On the other hand, if Great Britain were to ratify, and if, as a consequence, the Company abandoned the policy of non-intercommunication, there would then be no necessity for this removal.

Once intercommunication is assured other British steamship lines which have not hitherto adopted wireless telegraphy will, it may be anticipated, find it to their advantage to do so, and there is no reason why the apparatus employed should not be Marconi.

In any event, whether ships are equipped with Marconi or other apparatus, the existing Marconi shore stations under the Convention should, and no doubt would, in consequence of their advantageous geographical position and under the conditions of intercommunication established, receive a greater volume of business. It may be pointed out also that the Marconi Company will

Daniell, 690.
Maskelyne, 2569,
2622.

receive until 1911 an additional rate for messages interchanged with other systems "such additional rate not to exceed the rate allocated to the shore stations." (Clauses 10, 11. Agreement, Marconi and P.M.-General, 1904.)

48. In reviewing the relations of the Government with the Marconi Company two points stand out especially clear in the light of subsequent events. As to compensation.

(1.) If when the Post Office gave to Mr. Marconi cordial and courteous assistance the Government had secured a right of pre-emption of his invention and intended patents, this would have prevented an enterprise of national importance from passing into the hands of a private company and would have averted most of the difficulties which have arisen.

(2.) The fact, to which reference has already been made, that the Post Office has largely refrained from issuing licences to other companies has given the Marconi Company something approaching a monopoly during an important period, and may therefore have encouraged their dreams of a general monopoly.

49. Whilst the Committee consider that the Marconi Company have made an exaggerated case against ratification, under the apprehension that they will suffer commercial injury by the operation of the Convention, the Committee would be very reluctant to make any recommendation which would impede or be injurious to the fair working of their business.

They recognise the valuable work which has been done by the Marconi Company as the pioneers of practical wireless telegraphy, which work is fully appreciated by the nation. From the evidence placed before them the Committee see no reason to apprehend that the obligations of the Convention, if faithfully carried out by all concerned, will prove injurious to the Marconi Company, but consider that it will be to their ultimate advantage. If, on the other hand, it is found by practical experience that the Marconi Company are injuriously affected, the Committee recommend that they should be treated with a generous consideration to which they have, however, no equitable claim.

In all cases of legislation in the public interest, and where damage can be shown to accrue to private interests, something in the nature of compensation is granted. In this case, as already stated, the Committee do not believe, looking at the Post Office Marconi Agreement, that the Marconi Company can make any equitable claim. But in view of the particular circumstances of the case, the Committee recommend that, provided the Marconi Company loyally co-operate in carrying the Convention and the policy which it represents, and in the event of it being shown, under proper conditions of audit, that the Marconi Company during the transition period under the new conditions brought about by the Convention, have suffered diminution of business at their British stations, they should be granted compensation for a period of three years from the day or the Convention coming into operation—and that the compensation should be based upon a comparison with the average annual net traffic receipts from their British stations during the three years preceding ratification.

50. This being the analysis of the evidence, the Committee proceeds to conclusions. There appear to be three alternatives open to Great Britain:—

Ratification—Rejection—Postponement.

It may be convenient to dispose of the two latter first.

REJECTION.

Rejection would seem to be the more obvious alternative to ratification. The only evidence in favour of rejection was that of Mr. Cuthbert Hall, General Manager of the Marconi Company; of Professor Fleming, Scientific Adviser of the Marconi Company; of Mr. Henniker Heaton; and, with much less intensity, of Mr. Marconi. An examination of the statement of these witnesses shows that their arguments were based mainly on a consideration of the interests of the Company.

Rejection would seem to the Committee to involve the following results:—

INJURIOUS EFFECTS OF NON-RATIFICATION.

1. Great Britain took a prominent part in the Conference, and the Convention was modified in many important respects in order to meet her wishes and secure her adherence. If Great Britain now refuses to ratify, doubt will be thrown on her sincerity at the Conference; and it cannot be expected that her action will be regarded with equanimity by other countries. The contrast between the attitude of the British Government at the time of the Conference and its attitude in refusing to ratify, would be emphasised by the fact that the next Conference was invited to meet in London.

2. It would create a direct and powerful motive for the erection of stations on foreign territory; and such stations will be in no way subject to British control in time of war or emergency.

3. Foreign ships and coast stations would seriously interfere with British stations. Such interference would arise from the normal operations of ships in the Channel and elsewhere communicating with distant stations on foreign coasts. For not only would other nations be

forced to erect additional shore stations, but these stations and the ship stations as well would be obliged to use additional energy. This natural interference would very probably be increased by intentional action, and without the Convention British stations would have no remedy.

4. In the absence of International arrangements and rules for working, accounts, collection of charges, &c., the development of the service would be seriously embarrassed.

5. The drawbacks indicated in the three previous heads would be specially detrimental to Great Britain, owing to the predominance of her maritime interests and her geographical position.

6. Under the terms of the Convention the nations adhering are bound to refuse to license, on board a ship or at shore stations the apparatus of any system which declines to accept the principle of intercommunication. If Great Britain, therefore, refuses to ratify, the Marconi apparatus at present installed at foreign shore or ship stations will be removed, and its place taken by some system that accepts intercommunication.

7. If Great Britain does not ratify, the Convention will probably be modified by the Powers which adhere, in a manner injurious to British interests.

POSTPONEMENT OF RATIFICATION.

51. Postponement is either veiled rejection or delayed acceptance. This ambiguity of meaning may commend itself to those who see difficulties in a definite decision, but in an International question such as this the Committee consider an ambiguous course to be the worst of all.

Considered as veiled rejection it would bring about all the evil results that will follow on rejection, and the grave additional one that the frankness and *bona fides* of Great Britain may be questioned by other nations.

Considered as a delayed acceptance it would prolong a period of uncertainty without securing any conditions by which the future would be determined. No evidence has been brought before the Committee to show that within any specified time the scientific aspects of the question will undergo any substantial alteration of a kind which in the Committee's opinion is not already amply provided for and protected by the various provisions of the Convention.

On the other hand, delay in ratifying the Convention will give an opportunity to other countries to modify the Convention to Great Britain's disadvantage; or even to revert to the objectionable form of the original proposals which were transformed on the initiative of the British Delegates. But even if no alterations were made, the Convention would be brought into operation without reference to Great Britain. Great Britain having such a predominant interest in the question, ought to be in a position to make influence felt from the start in interpreting, administering and enforcing the terms of the Convention.

The fact that by twelve months' notice Great Britain can at any time withdraw from the Convention if it is found that British interests are in any way jeopardised, appears to secure all necessary liberty of action, especially during the experimental period.

It appears to the Committee, therefore, that from the point of view of national and public interests rejection presents serious drawbacks, and that postponement differs from the rejection only for the worse.

52. These alternatives being disposed of, the Committee proceed to set out the effect of the adhesion of this country to the Convention. Many of the advantages attending ratification have been stated in the body of the Report. The principal of those advantages may be summarised as follows:—

The primary object of the Convention is to facilitate and promote the use of Wireless Telegraphy, especially for maritime purposes, a matter essentially of an International character and of high importance and benefit to this country, having regard to her predominant maritime interests.

(1.) The Convention facilitates the use of Wireless Telegraphy by providing International arrangements for rules of working, control and licensing of operators, efficiency of apparatus, collection of charges, transmission of messages, publication of information, &c.

(2.) The Convention provides the means of preventing confusion and of avoiding interference between neighbouring ship or shore stations, a result increasingly difficult or impossible of attainment except by International agreement.

(3.) The Convention secures general freedom of communication between ships and coast stations, thus giving British ships fitted with any form of apparatus the advantage of being able to communicate freely with the greatest number of other ships and land stations throughout the world.

(4.) The freedom of communication thus secured, and the protection from interference thus afforded, will give free play to all systems and will thus tend to the encouragement and progress of invention in connection with Wireless Telegraphy. These advantages, important though they be, are secondary to the supreme consideration of naval interests and national defence. The unanimous evidence of witnesses representing the Admiralty and War Office is conclusive that the Convention (now framed largely on the initiative of the British Delegates) obviates injury and secures substantial advantages not otherwise attainable.

Among these are the following :—

(A) A general obligation is imposed on all stations not to interfere with the working of other stations.

(B) Exempted stations are allowed and given International sanction. Certain wave-lengths are reserved for Naval use, so as to be absolutely free from interference by commercial stations.

(C) International sanction is obtained for such censorship arrangements as may be necessary.

(D) The effect of the Convention, if adhered to by Great Britain, is directly to encourage the erection of stations at suitable points in British territory, and the general development of the use of Wireless Telegraphy in the British Mercantile Marine, thus providing a widely extended system over which the Admiralty would have control in time of emergency.

(E) It may be added that the Convention has been framed with careful regard to the interests of His Majesty's Dominions beyond the seas, the several Colonies and India being able to adhere and withdraw separately as may appear to them expedient; and adequate representation at future Conferences has been obtained for such Colonies or Dependencies as may subsequently adhere.

(F) Finally, the fact may be emphasised that at any time, if she finds the Convention to be in any way detrimental to her interests, Great Britain, by giving a year's notice, can retire from the Convention. Meanwhile, if she ratifies, no alteration to her detriment can be made in the Convention without her consent; and it has been already explained that the Bureau has no initiative or executive powers of any description.

53. In view of the foregoing considerations it is manifest that universal compulsory intercommunication, with the exceptions and exemptions secured in the Convention, is a principle to be aimed at, and one that must be of benefit both nationally and internationally.

A careful perusal of the *Procès verbaux* will show that the representations of the British delegation for amendments and modifications of the draft Convention were met in the most considerate manner by the Conference. In all essential points the Convention now conforms to the conditions laid down by the Government with the view of securing national interests. The Committee, in conclusion, desire specially to lay stress upon the observation that if, after the substantial changes made on the initiative of the British delegates, Great Britain refuses to ratify, the result might have a material effect in weakening the moral position of Great Britain at future International Conferences.

54. The Committee therefore report that, in their opinion, the effect of the adhesion of this country to the Convention would be advantageous to national and public interests, and that its non-adhesion would be seriously detrimental to those interests.

55. The proceedings of the Committee have been public, and every opportunity has been afforded for evidence being given germane to the inquiry.

DRAFT REPORT proposed by Mr. Arthur Lee brought up and read the first time, as follows :—

(N.B.—The Committee will presumably accept those portions of the Chairman's Draft Report—paras. 1-28—which are mainly historical and explanatory, and which could be prefixed to the following observations.)

THE QUESTION BEFORE THE COMMITTEE.

1. The main objects of the Convention were to provide for the international regulation of wireless telegraphy, with a view to establishing general intercommunication between all systems and stations, and to eliminating interference between them. References.
(Not yet complete.)

The Committee recognise that these are objects which are desirable in themselves, and it is doubtless inevitable that they will some day be effected, but it does not seem clear that the problem is yet ripe for solution, or that it can be solved on the lines of the present Convention.

2. In any event, the Committee have felt it their duty to examine the question solely on its merits, and from the standpoint of British interests only. They recognise that the question is, to a large extent, an international one also; but the British Empire is in a peculiar and commanding position with regard to it. B. Smith, 357.

THE BRITISH POSITION.

3. Owing to superior foresight and enterprise, coupled with unique geographical advantages, England has gradually built up, and at the present moment possesses and controls, the only extensive and efficient organisation for carrying on a public wireless telegraphy service. This organisation, provided by the Marconi Company, covers a large proportion of the chief maritime routes, and places England in a predominant position as regards the wireless telegraphy service of the world. This fact has been clearly recognised by the foreign rivals of the Marconi Company, who confidently anticipate that the Convention will prove effective in breaking down this predominance. Hall, 1624-32,
1727 3899-900.

4. If England ratifies the Convention she will necessarily place at the disposal of other countries and of rival wireless telegraphy companies the unique advantages which she has secured for herself, without receiving in return reciprocal advantages in any way commensurate with those she offers to others.

B. Smith, 353.

5. In the matter of wireless telegraphy, England has far more at stake than any other Power, owing to the scattered and world-wide nature of her Empire, which depends for its security upon the control of the sea by her fleets.

To this country, therefore, the wireless telegraphy question is primarily one of national strategic importance; commercial interests—however vast—necessarily taking the second place.

Daniell, 728-731.

6. Evidence was given by representatives of the Admiralty (who had also served as delegates at the Conference) that the Naval authorities are satisfied with the Convention in its present form, but the Committee would have been glad to have been afforded some further and more comprehensive assurances upon this point.

B. Smith, 386.

Daniell, 768.

In seeking to come to a conclusion upon a matter of such vital strategic and national importance the Committee have felt themselves greatly hampered by their inability to elicit any official assurance (either public or private) that the Convention has been even considered by the Committee of Imperial Defence, although the question would seem to be essentially one upon which the judgment of that body should have been obtained and communicated (if necessary, confidentially) to this Committee.

The Committee therefore feel that they are without sufficient authoritative information upon which to base a final judgment as to the desirability of ratification, from the standpoints of high national or international policy.

CONSEQUENCES OF NON-RATIFICATION.

B. Smith, 320-2.
Bethell, 3814,
3824.

7. As regards the latter, it has been strongly pressed upon the Committee by all the Government witnesses, most of whom were delegates to the Berlin Conference, that failure to ratify, or even a postponement of ratification, would lead to serious international complications, and possibly even to a "wireless war" against this country. Without entering, for the moment, into the soundness of this view, the Committee feel bound to protest against this line of argument on the part of the official witnesses.

8. If the latter are correct in their view that this country is already committed to the policy of ratification, through having attended the Conference and having helped to amend the original Convention proposed by the German Government, then the question becomes a "chose jugée," and should never have been referred to a Committee of this House. Ratification or non-ratification is a matter fully within the discretion of His Majesty's Government, and there was no necessity or justification for inviting a Committee to pronounce on the subject unless the question was considered an open one upon which a verdict could be given, based solely upon a scientific and unprejudiced examination of the facts.

9. In any event the Committee are of opinion that the perilous consequences to this country of non-ratification, or of a decision to postpone ratification, have been greatly over-estimated.

In the first place, the possibility and propriety of such a course is expressly recognised and provided for in Article 16 of the Convention, which runs as follows:—

"Governments which have not taken part in the present Convention shall be allowed to adhere thereto on their request.

"This adhesion shall be notified through the diplomatic channel to the contracting Government under whose auspices the last Conference has been held, and by it to all the others.

"Adhesion involves, as a matter of right, acceptance of all the clauses of the present Convention and admission to all the advantages stipulated therein."

Bethell, 3820.

10. The legal right of this country to postpone ratification is therefore unquestionable, but it has been suggested by some witnesses that our moral right is so doubtful that all the other Powers would at once abandon the Convention, and either proceed to frame another, inimical to the interests of this country, or else combine in an attempt to coerce us by means of a "wireless war" and boycotting of British stations.

Bethell, 3688.

It seems scarcely credible to the Committee that such a shortsighted and suicidal policy should be even contemplated by any Power or Powers, however disappointed they might be at England's non-adherence, but in any event the Committee are of opinion that the geographical and strategic advantages possessed by the British Empire place it in an impregnable position as against hostilities of this kind, and that a glance at the map will show the practical impossibility of boycotting British stations. Moreover, we alone possess an extensive and efficient system of wireless telegraphy, already in full operation, which either is or can easily be made sufficient for all our needs, both strategic and commercial.

In the extremely improbable event, therefore, of a "wireless war," it would not be this country which would suffer most, and the ultimate victory would necessarily rest with us.

11. The Committee, however, do not attach any serious importance to this fear of reprisals, and they are convinced that, whatever may be the fate of the present Convention, international commercial convenience will prove too strong for any policy of official boycott, and that the best organised and most convenient wireless telegraphy service will get its full share of the world's business, regardless of its nationality.

THE POLICY OF POSTPONEMENT.

12. Whilst advocating a policy of delay and further consideration of this difficult question, the Committee do not wish to take up an attitude in any way antagonistic to the principles aimed at in the Convention, nor do they wish to deny the existence of certain technical difficulties, to remove which the regulations approved at the Conference were primarily designed.

Their opposition to immediate ratification is based solely upon the belief that the problem is not yet ripe for solution, and that a premature attempt at international regulation may do more harm than good. Marconi, 2895.
Fleming, 3626.
Hall, 3993-9.

13. At the same time the Committee recommend that the Government should do what it can, short of immediate ratification, to meet the views expressed in the Convention and its regulations, and particularly that it should facilitate the establishment of a reasonable number of "intercommunicating stations" for general use throughout the British Empire. It would also be desirable to agree to adopt the proposed international code of signals, and to accept the obligation, both for its military and commercial stations, to "interfere" as little as possible, and to respond to all signals of distress.

With these reservations, however, the Committee feel that the interests of this country, and the future development of the science, will best be served by promoting a preliminary era of free competition between all systems, until such time as the future of wireless telegraphy can be more clearly foreseen.

14. The Committee are also of the opinion that if and when a system of international regulation is adopted, it should be general in its application and deal not only with communication between ship and shore, as in the present Convention, but also with service between ship and ship and shore and shore.

These two latter services are admittedly not yet ripe for control, and until they are it seems undesirable to deal with the subject piecemeal.

DIFFICULTIES OF INTERNATIONAL CONTROL.

15. The question of general international regulation would be comparatively simple if the wireless telegraphy service in each country was worked by the Government, instead of being left in the hands of private companies. But the international control of private and competing companies by their respective Governments presents great difficulties, and the necessity for it does not appear to have yet arisen, seeing that, in Europe at any rate, there is apparently only one company at the present moment carrying on any extensive public service of wireless telegraphy, and that company (the Marconi) is already subject to British control. Gavey, 1919-20.
Inglefield, 2097-9.
Muirhead, 2460-1.
Maskelyne, 2673.

International control would seem to be premature until there are serious competing interests to be controlled, and at present, whilst there is no lack of desire to compete, the only serious competition that appears actually to exist is between rival types of apparatus and not between rival working organisations. Marconi, 3291

16. The Committee are of opinion that arrangements for harmonious co-operation would very soon be come to by any competing companies which possessed practical organisation and the experience which comes from working them, but it seems inevitable that confusion and disorganisation would result if the one existing organisation were compelled to place itself at the disposal of every purchaser of a single set of apparatus of any other pattern. The difficulties of this situation were well described by the principal British Delegate at the Conference:— Fleming.
Appendix 2,
page 3, paragraph 10.

"In order to show the drawbacks of a general exchange, let us take an analogy which will appeal, perhaps, to those familiar with ordinary telegraphy. Let us suppose that a region of twenty thousand square kilometres is provided with thousands of telegraph wires radiating from a common centre, and that everyone passing, whoever he may be, can transmit telegraph signals to the centre by attaching any transmitter whatever at any point to any of these wires. It seems to me that the operator at the centre would certainly have a good deal of trouble as regards the efficient working of the system." B. Smith, "P.V.,"
p. 58.

It is indeed obvious that the machinery which the Convention seeks to create is altogether unprecedented, and there does not appear to be any parallel to the proposed organisation of an extensive public service (telegraphic or otherwise), involving the use of highly specialised apparatus carried on by the co-operation of the employees of a multiplicity of authorities, and involving the common use of that apparatus by rival companies or even by comparatively irresponsible individuals. Smith, 469.

It seems a hazardous experiment from any point of view, and even its advocates admit it will lead to a good deal of confusion at the outset. The Marconi Company contend that the disorganisation would be permanent. Loring, 1117.
Gavey, 1849.
Bethell, 3673

17. It further appears probable that when a business of wireless telegraphy is carried on by private companies, discipline and control can best be maintained by the companies themselves, in their own joint interests, whereas the machinery provided by the Convention for enforcing the observance of international regulations, through diplomatic channels and the agency of the Government departments which do not themselves manage the service, seems likely to prove both cumbrous and ineffective.

THE MARCONI COMPANY.

18. The position of the Marconi Company has naturally engaged the serious attention of the Committee, in view of the fact that it is the pioneer British Company, and at the present time affords the only extensive and effective organisation operating a public wireless telegraphy service on a commercial scale.

It is not proposed to attempt any pronouncement upon the vexed question as to who was the original inventor of wireless telegraphy, or as to who is the possessor of the "master-patent."

But it seems clear that the Marconi Patent of 1896 was the first to cover practical wireless telegraphy, and that this company was first in the field by establishing a wireless service, on a commercial scale, prior even to 1904, up to which date there was no sort of legal or official restriction upon the development of its rivals.

Bethel, 3672.

It has, moreover, been acknowledged by the Admiralty that the Marconi Company has built up an organisation which would be of great benefit to Naval interests, and which was sufficiently extensive to make this country largely independent of any foreign systems.

It is therefore desirable that as much consideration should be shown to the Marconi Company as is compatible with national interests, and that no unnecessary assistance should be extended to its foreign competitors.

Marconi, 3306.
Hall, 1352-3,
1355.

19. The Company is evidently convinced that the Convention, if it comes into force, will disorganise their service and prove highly injurious to their interests. Other witnesses disagree with this view, but the Company presumably knows its own business best, and is evidently prepared to resist compulsory intercommunication by every legal means at its disposal.

THE LEGAL POSITION.

Whether this policy is wise or the reverse is not for the Committee to decide, but its possible consequences must be faced, as it may expose the taxpayers of this country to heavy claims for compensation.

B. Smith, 74.
Daniell, 766-7.
(See Appendix.)

20. In considering this aspect of the question, the Committee have been perplexed by the uncertainty of the legal position, and they feel that some authoritative legal opinion, in rebuttal of that produced by the Marconi Company, should have been offered as to the interpretation of existing agreements, as, in the absence of such opinion, it does not seem clear that the agreements admit of the interpretation placed upon them by the Post Office—the party chiefly interested in their abrogation.

The ultimate decision of this question can only be reached in a Court of Law, but it may be observed that, until the Convention is ratified, no legal dispute, or case for compensation, can presumably arise, and this fact affords another reason for proceeding with due circumspection.

THE QUESTION OF MONOPOLY.

21. Before leaving the subject of the Marconi Company, the Committee wish to emphasise that they have no desire to promote the establishment of a monopoly by this or any other wireless telegraphy company, and they recommend that the Government, whilst retaining, of course, full control over the location of stations, rates, etc., should grant licences on equal terms to all competing companies who may wish to engage in the business. (In justice to the Marconi Company it should be pointed out that they not only raise no objection to this course, but even advocated it before the Committee.)

Marconi, 3027,
3297-8.

These additional stations can, of course, accept the obligation to intercommunicate, and if they see fit to do so they will presumably reap an advantage which the Marconi Company is willing to concede to any of its rivals so long as it may retain that complete control over its own organisation which it considers (rightly or wrongly) to be indispensable to efficient and successful working.

THE TECHNICAL EVIDENCE.

22. The task of the Committee in attempting to weigh and dissect the highly technical and often conflicting evidence submitted by rival experts in the science of wireless telegraphy has been of unusual difficulty, not only because the subject is abstruse and complicated in itself, but on account of the lack of any authoritative body of independent expert opinion to which it is possible to appeal. The science of wireless telegraphy is so much in its infancy, and the number of qualified experts is consequently so small, that all of them, without exception, who appeared before the Committee may be said to have been interested parties, although it is not for a moment suggested

that they gave any evidence which was not in accordance with their convictions. They consisted of two main classes:—

(a) The Government experts, all of whom had served as delegates in one or other of the Berlin Conferences, and who consequently were committed to a support of the Convention which they had signed.

(b) Outside technical experts, all of whom were either rival inventors or engaged in promoting the interests of the various competing wireless telegraphy companies.

No independent and authoritative expert evidence was obtainable, possibly because none exists, but it will readily be recognised that this fact added greatly to the difficulties which always confront a non-expert Parliamentary Committee in sifting technical evidence with a view to arriving at the truth.

23. As regards non-technical outside opinion, the views of the great shipping companies are, of course, of great importance. But here, again, only one company (the Royal Mail Steam Packet Company) came forward to give evidence (in favour of the Convention), whereas an even more important company—the Cunard Company—whilst not giving evidence before the Committee, has hitherto been opposed to the Convention and has expressed its objections to it in a letter to the Board of Trade, dated December 15th, 1906. (See Appendix.)

INTERNATIONAL VOTING POWER AT CONFERENCES.

24. The Committee also regret that under the terms of Article 12 of the Convention the maximum number of votes that can be allotted to the British Empire at future Conferences has been limited to six. It consequently follows that, under this rule, two at least of the self-governing Colonies, possessing an extensive seaboard, must be left without direct representation or voting power at the Conferences. It seems unfortunate that in this matter the Convention does not follow the precedent of the "International Telegraphic" rather than that of the "Postal" Convention, but it appears that the British delegates at Berlin were out-voted on this point.

This question was discussed at the Colonial Conference on May 14th, and some apprehensions were then expressed by Colonial Ministers as to the effect of this restriction on the representation and voting power of the self-governing Colonies.

TECHNICAL ASPECTS OF THE CONVENTION.

25. As regards the purely technical and administrative aspects of the Convention, the Committee feel that the science of wireless telegraphy has not yet reached a stage of development where it can be advantageously subjected to international control or to regulations of a rigid character.

The whole art is still in an embryonic stage, and it seems impossible to foresee its developments, or even the definite lines upon which they will proceed. Bordelongue, "P.V.," page 28.

As the principal British Delegate well expressed it at the Conference:—

"In the matter of radiotelegraphy nothing is certain but the unexpected. . . . B. Smith, "P.V.," page 59.
The regulations which we prescribe will be applied to a science still in its infancy. It is necessary not to smother the infant with its own swaddling clothes."

26. The Committee therefore feel that the proposed regulations, whilst possibly suitable to the conditions of the moment, may be inapplicable to developments which may almost immediately present themselves. Consequently they not only object to anything that might fetter our freedom of national action at this early stage, but deprecate as premature the acceptance of obligations which might tend to stereotype comparatively crude and, probably, obsolescent, systems of wireless telegraphy.

In this connection it is well to recall the deadening effect that the premature legislation which was designed in 1882 to regulate "and facilitate" electric lighting (and incidentally to prevent a monopoly) had upon the development of that industry in this country.

The more prudent course for the present would appear to be to encourage the fullest development of the science, subjecting it to as few restrictions as possible, and trusting to open competition to promote the survival of this system that is fittest.

THE QUESTION OF "INTERFERENCE."

27. It may be contended that this policy would lead to much confusion and interference between different systems and stations, but this view is not substantiated by the expert evidence. Lodge, 2309. Marconi, 3279-81. Maskelyne, 2567.
If wireless telegraphy were to remain in the rudimentary condition from which it is just emerging, it is possible that the multiplication of stations, and absence of international regulation, would lead to a state of confusion which might even amount to chaos in regions where the traffic was heavy.

But it appears clear, as the development of the science proceeds, that the difficulties arising from "interference" diminish rather than increase, owing to the superior "selectivity" of the newer systems. Interference, possibly even that of a wilful character, can now apparently be "tuned out," and it seems probable that in the near future the best systems will have attained such perfect

Maskelyne 2563,
2567.
Marconi, 3285-7.

"selectivity," combined with power of controlling the *direction* of electric waves, that confusion resulting from several systems working in the same region need no longer be apprehended.

28. If this is the case, the elaborate regulations provided under the Convention would soon become obsolete, but as long as they remain in force they would tend to perpetuate and encourage the more primitive and less efficient methods of wireless telegraphy and to discourage the development of more progressive and efficient systems.

PRESENT OBJECTIONS TO "INTERCOMMUNICATION."

Maskelyne, 2537,
2585.
Marconi, 3211.
Fessenden, 3263.
Fleming.
Appendix 2, page
5, paragraphs 3-7.
Maskelyne, 2537.

For example, it became clear in the course of the Committee's investigations that the Poulsen "continuous-arc" system, which appears to be the pioneer of a new and striking development of wireless telegraphy, would be unable to intercommunicate with the inferior "sparking" systems now generally in use. Consequently it could only comply with the rules of the Convention by carrying with it, as a sort of parasite, the inferior "De Forest" system, and a double set of apparatus would have to be installed at each "Poulsen" station to enable it to intercommunicate with stations operating on the "sparking" system.

29. The effect of this must necessarily be to deter commercial interests from adopting the more advanced systems and to give an undue advantage to the less advanced systems, to suit and regulate which the Convention has been particularly designed.

This result would be impossible under a system of healthy and open competition, and for this reason also the Committee recommend that ratification should be postponed until the best methods of wireless telegraphy have had time and free opportunity to demonstrate their superiority.

Preece, 3604, 3570,
3574.

30. It has been suggested to the Committee that the privilege of "exempting" stations secured by Article II. of the Final Protocol amply safeguards the position of the "Poulsen" and other higher grade systems which cannot intercommunicate with inferior systems, but whilst it relieves them from penalties for *not* communicating it undoubtedly places them in a disadvantageous position, commercially speaking, as compared with systems that *can* comply with the whole of the international regulations. This point was clearly brought out by Sir William Preece, who, in his evidence, was emphatic that any system which could not comply with the requirements of the Convention would have to suffer for it.

This fact constitutes, in the opinion of the Committee, one of the most serious objections to the Convention in its present form.

31. An immense amount of highly technical evidence, often contradictory, was submitted to the Committee by rival experts, with regard to the suitability or unsuitability of various details of the proposed regulations. The Committee does not feel itself competent to adjudicate between these conflicting views, but considers they afford an additional reason for postponing the adoption of elaborate regulations until scientific opinion on the subject has crystallised somewhat further.

CONCLUSION.

32. In conclusion, the Committee wish to reiterate their belief that it is at present premature to attempt to control wireless telegraphy by international regulations.

At the same time they recognise the undoubted advantages of general intercommunication, and hope to see these reaped at a later period, without having to destroy or injure existing and efficient organisations, and without hampering the development of a science manifestly still in its infancy.

33. The Committee have no objection to the principle of international control, but feel that it is at present too early to effect it, and in the meantime believe that free competition (under the full control of the Government) is more in consonance with British ideas and more likely to bring about a right and lasting solution of the whole problem.

34. The Committee, therefore, recommend that the Government, whilst expressing its willingness to consider the adoption of any rules for the international working of wireless telegraphy which experience may have shown to be essential, should avail itself of Article 16 of the Convention and postpone ratification until after the Conference of 1911, or until such time as the scope and ultimate character of wireless telegraphy are more clearly established and sufficiently stereotyped to make international control both feasible and desirable.

Question proposed, That the Chairman's Draft Report be now read a second time paragraph by paragraph.

Amendment proposed, To leave out all the word after the words "that," in order to insert the following words:—

"The Committee think it inadvisable to proceed with the consideration of any Report which is based upon the principle of immediate ratification, seeing that, in their opinion, ratification at this stage would be premature, and prejudicial both to British interests and to the development of Radiotelegraphy."—(Mr. Arthur Lee) instead thereof.

Question, That the words proposed to be left out stand part of the question.—The Committee divided.

Ayes, 5.

Mr. Adkins.
Mr. Sydney Buxton.
Sir William Holland.
Mr. Lambert.
Sir Gilbert Parker.

Noes, 3.

Mr. Gwynn.
Mr. Arthur Lee.
Sir Edward Sassoon.

[Adjourned till Monday next at half-past Eleven o'clock.

Monday, 24th June 1907.

MEMBERS PRESENT :

Mr. Sydney Buxton.
Sir William Holland.
Mr. Adkins.

Sir Edward Sassoon.
Sir Gilbert Parker.

Sir JOHN DICKSON-POYNDER in the Chair.

Chairman's DRAFT REPORT considered.

Paragraph 1 *agreed to*.

Paragraph 2.

Amendment made by adding at the end of the paragraph the following words:—"Although the Committee had not the advantage of hearing evidence from any Member of the Committee of Defence, they have been assured on the highest authority that there was no difference of opinion among the Members of that Committee as to the satisfactory nature of the Convention from the point of view of the interests of the country."—(Sir William Holland.)

Other Amendments made.

Paragraph, as amended, *agreed to*.

Paragraphs 3-9, *agreed to*.

Paragraph 10. An Amendment made by inserting at the beginning of the paragraph the following words: "The Committee do not wish to express any opinion on controversial questions of priority and patent right, but it appears to be generally admitted that"—(Mr. Sydney Buxton).

Paragraph, as amended, *agreed to*.

Paragraphs 11-18, *agreed to*.

Paragraph 19, amended, and *agreed to*.

Paragraph 20, *agreed to*.

Paragraph 21, amended, and *agreed to*.

Paragraphs 22-25, *agreed to*.

Paragraph 26, *agreed to*.

An Amendment proposed, after paragraph 26, to insert the following new paragraph:—

"The Second Conference, after several postponements, was summoned for the autumn of 1906, and the Instructions to be given to the British delegates were settled after full discussion between the Departments and Ministers specially concerned. In relation to the question of intercommunication the Instructions were based on the decision of 24th February 1904, with the addition, to which great importance was attached by the Admiralty, that discretion should be reserved to the Government to exempt particular coast stations from the obligation to intercommunicate. The Instructions were fully concurred in by the Admiralty, War Office, Post Office, Colonial Office, India Office, Treasury, and Board of Trade. It may be noted that the Admiralty delegates were specially empowered to judge independently of their colleagues whether the conditions contained in the Instructions were satisfied; and they were empowered, in the event of difference of opinion arising between them and the other delegates, to refer the question to the decision of the Government. No difference of opinion did arise between the delegates."—(The Chairman.)

Proposed new paragraph *agreed to*, and inserted in the Report.

Paragraphs 27 and 28, *agreed to*.

Paragraphs 29–40, amended, and *agreed to*.

Paragraph 41.

Amendments made.

Another Amendment made to the paragraph by adding at the end of the paragraph the following words:—"It may be added that the witnesses representing systems other than the Marconi system expressed themselves strongly in favour of the ratification of the Convention, on the twofold ground that under existing conditions the adoption and extension of their systems which they claim to be more perfect, were greatly hampered; and that under the Convention, the free competition ensuing would ensure full opportunity for the development of improved systems of wireless telegraphy."—(Mr. Sydney Buxton.)

Paragraph, as amended, *agreed to*.

Paragraphs 41 and 42, *agreed to*.

Paragraphs 43 and 44, amended, and *agreed to*.

Amendment proposed, after paragraph 44, to insert the following new paragraph:—"Lloyds is an Institution which is financially interested in no particular Wireless Company, but directly concerned in the welfare of the British Mercantile Marine. In the matter of wireless telegraphy, regarded from its commercial side, the evidence of Lloyds is entitled to consideration, and the Committee have been impressed by the support which that Corporation gives to the Convention. In this matter the interests of Lloyds would naturally be identical with British Commercial interests as a whole."—(Mr. Sydney Buxton.)

Proposed new paragraph *agreed to*, and inserted in the Report.

Paragraph 45 amended, and *agreed to*.

Paragraph 46, *agreed to*.

Paragraph 47, amended, and *agreed to*.

Paragraph 48.

Amendments made.

Another Amendment proposed, in line 6, to leave out all the words from the word "would" to the word "arisen," both inclusive, in order to insert the words "subsequent difficulties might have been avoided."—(Mr. Sydney Buxton) instead thereof.

Question, That the words proposed to be left out stand part of the paragraph,—put, and *negatived*.

Question, That those words be there inserted,—put, and *agreed to*.

Paragraph, as amended, *agreed to*.

Paragraph 49, amended, and *agreed to*.

Paragraph 50.

An Amendment made.

Another Amendment made by leaving out Sub-section 7.

Paragraph, as amended, *agreed to*.

Paragraph 51.

Amendment proposed to leave out all the words from the beginning of the paragraph down to the word "acceptance" in line 8, inclusive, in order to insert the following words:—

"No evidence was given to your Committee in favour of postponement as distinguished from non-ratification. It may be pointed out that postponement would in no way diminish any of the unfortunate results which would follow on rejection, while it would be attended by the grave additional result that the action of Great Britain might be open to much mis-construction in regard to the position she took up at the Conference, through which important concessions were obtained by her delegates. Further"—(The Chairman)—instead thereof.

Question, That the words proposed to be left out stand part of the paragraph,—put and *negatived*.

Question, That those words be there inserted,—put and *agreed to*.

Another amendment proposed, in line 13, to leave out all the words from the word "on" down to the word "made" in line 16, both inclusive, in order to insert the word "Moreover"—(The Chairman)—instead thereof.

Question, That the words proposed to be left out stand part of the paragraph,—put and *negatived*.

Question, That the proposed word be there inserted,—put and *agreed to*.

Another amendment made.

Paragraph, as amended, *agreed to*.

Paragraph 52.

Amendments made.

Another Amendment made by adding at the end of the paragraph the following words:—
“Some apprehension has been expressed that the Convention may have the effect of impeding the progress of Scientific invention. The Committee are of opinion that it will not have any such effect; but if, contrary to their expectations, it should be found in practice that any of the Regulations have the result of discouraging invention, they recommend that steps should be taken to obtain such Amendments as may be necessary in order to avoid that result; and it may be borne in mind, that in the last resort, Great Britain would be able to take advantage of Article 22, and withdraw from the Convention.”—(Mr. Sydney Buxton.)

Paragraph as amended, *agreed to*.

Paragraph 53 amended, and *agreed to*.

An Amendment proposed, after Paragraph 53 to insert the following new paragraph:

“The Committee have set out these arguments and considerations in elaborate detail because they interpret the reference to them to mean that their Report is intended by the Government to be an important factor in the final action which it may take, and they have, in consequence, given fully the grounds on which they now base their conclusion and report.”—(Mr. Adkins.)

Proposed new paragraph *agreed to* and inserted in the Report.

Paragraph 54, amended, and *agreed to*.

Amendment proposed, after Paragraph 54 to insert the following new paragraph:

“The Committee further venture to recommend that if, in accordance with this Report, it is decided to ratify the Convention, the Government should endeavour to arrange for simultaneous ratification by the principal countries who composed the Conference; this would prevent the necessity for exceptional and provisional arrangements in the contingency of other countries not ratifying, and would be in accord with the spirit of international amity which marked the proceedings of the Conference.”—(Mr. Adkins.)

Proposed new paragraph *agreed to*, and inserted in the Report.

Paragraph 55 *agreed to*.

[Adjourned till Tuesday the 2nd July at Eleven o'clock.]

Tuesday, July 2nd 1907.

MEMBERS PRESENT:

Mr. Lambert.
Mr. Lee.
Mr. Gwynn.
Mr. Sydney Buxton.

Sir Gilbert Parker.
Sir William Holland
Mr. Adkins.
Mr. Macpherson.

Sir JOHN DICKSON-POYNTER in the Chair.

Chairman's DRAFT REPORT further considered.

Question put, That this Report, as amended, be the Report of the Committee to the House.

The Committee divided:

Ayes, 5.

Mr. Adkins.
Mr. Sydney Buxton.
Sir William Holland.
Mr. Lambert.
Sir Gilbert Parker.

Noes, 4.

Mr. Gwynn.
Mr. Arthur Lee.
Mr. Macpherson.
Sir Edward Sassoon.

Ordered, To Report, together with the Minutes of Evidence and an Appendix.

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Tuesday, 19th March 1907.

MEMBERS PRESENT:

Mr. Adkins.
Mr. Sydney Buxton.
Sir John Dickson-Poynder.
Mr. Gwynn.
Sir William Holland.

Mr. Lambert.
Mr. Arthur Lee.
Mr. Macpherson.
Sir Gilbert Parker.
Sir Edward Sassoon.

Sir JOHN DICKSON-POYNDER IN THE CHAIR.

Mr. H. BABINGTON SMITH, C.B., C.S.I. called; and Examined.

Chairman.

1. You are the Secretary of the Post Office, and have held that position since October 1903?—Yes.

2. Can you tell the Committee what experience you have of matters connected with wireless telegraphy?—Since I became Secretary of the Post Office I have taken part in all the discussions and negotiations in which the Post Office has been concerned connected with wireless telegraphy; and also it has been my duty to acquaint myself generally with the records of previous transactions relating to wireless telegraphy. I was also one of the British Delegates at the Berlin Conference of 1906.

3. Can you tell the Committee now as shortly as possible what is wireless telegraphy?—"Wireless telegraphy" (to which the name of "Radio-telegraphy" is also given—that name being used in the Convention) means the transmission of signals by electrical energy between two points which are not connected by a wire or other metallic conductor. The term is specially used—and exclusively used in the Convention—in connection with systems employing the Hertzian waves. The Hertzian waves are so called from their discoverer, Heinrich Hertz.

4. Will you give a brief description of the means employed?—Perhaps I may say that I am not in any sense a technical expert, and therefore, as regards any technical details, other witnesses will be better able to inform the Committee; but I may say generally that a transmitting and a receiving station are necessary. At each of those stations there must be a wire or wires stretched up in the air by means of a mast, or a tower, or a balloon, or a kite, or some other means. That structure of wires is known as the antenna, or aerial. It may be of many different shapes. Speaking generally, the greater the range intended to be covered by the station the higher and more extensive must be the antenna or aerial. I may say that for long

0.6

Chairman—continued.

distance communication the structure for supporting these wires is sometimes very high—400 feet is the height in some cases.

5. You have photographs you can hand in to the Committee, have not you, of some of the stations?—I have some photographs here of a station. There is nothing remarkable about this station; it is a station that has been put up for the Post Office at Hunstanton, on the Wash, for communication over the comparatively short distance to Skegness on the other side of the Wash. The photographs will give a general idea of the appearance of a station.

6. These can be handed in and we can proceed with the evidence. Do you come before the Committee as the representative of the Post Office, or in your capacity as the chief British delegate at the Conference; do you come in either, or both those capacities?—In both. I have some difficulty in separating the two.

7. Can you explain what energy is necessary for transmission of wireless telegrams?—A source of energy is required in the first place: it may be a battery or a generator worked by a steam engine, a gas engine, an oil engine, or by other power. The energy from that source is communicated to the transmitting apparatus proper. To describe that would be to enter into technical details which I had better perhaps leave for other witnesses, if the Committee desire to have them.

8. How are these messages received?—At the receiving end, where there is also an aerial, the receiving apparatus is attached to the wires of the aerial. There are many different forms of receiving apparatus in use; in fact, I think I may say that one of the principal differences between different systems of wireless telegraphy consists in the different forms of receiving apparatus. In some cases the apparatus records the message automatically by writing down the

A

dot

19 March 1907.]

Mr. H. BABINGTON SMITH, C.B., C.S.I.

[Continued.]

Chairman—continued.

dots and dashes of which the Morse signals, consist, but in most forms of receiving apparatus a telephone is attached and the operator hears in the telephone the dots and dashes. That form of reception has this advantage, that it permits of much more rapid working than any recording apparatus which is at present in use.

9. What is the range attainable?—With the most powerful stations very great distances have been covered; signals have actually been transmitted across the Atlantic, but in the present state of the invention communication cannot be maintained with regularity over so great a distance, especially by day. The transmission over long distances presents greater difficulties by day than by night. The maximum effective range for regular communication by day or night may be put, possibly, at 1,000 to 1,500 miles; but the state of affairs in that respect is changing almost from month to month. As regards the ordinary ship and store stations the effective range may be said to vary between 50 and 300 miles, or possibly rather more, according to the power of the station.

10. Are the signals sent in a particular direction, can they be confined to that direction?—Ordinarily they are sent out with equal energy in all directions; that is to say, a message sent out for instance from the high power station at Poldhu, in Cornwall, and intended for ships in the middle of the Atlantic may be equally received at Berlin or Gibraltar, in an opposite direction. There have been attempts to devise methods of directing the waves, or at least of sending them with the greatest energy in one particular direction, but so far the success that has attended those attempts is only moderate.

11. When was wireless telegraphy invented?—The Hertzian waves were first practically applied for telegraphic purposes in 1895 or 1896 by Marconi. Since that time there have been further inventions and improvements of many kinds, and the number of systems now in existence is very considerable.

12. Can you give the Committee the names of the principal systems now in use?—The principal systems besides the Marconi system are the De Forest system—that is a system which is American in origin, but the rights for Great Britain, and I believe for all parts of the world except North America, have been acquired (it is said) by the Radiotelegraphic Company, a British Company, of which Lord Armstrong is the Chairman.

Mr. Lambert.

13. You say: "It is said." Do you know it?—I have no direct information upon the point, but I believe that is so. That they have acquired the De Forest rights for Great Britain is certain; but as to the precise extent of their acquisition as regards other parts of the world, of that I cannot speak with absolute certainty. Then there is the Fessenden system (which is also an American system); the Lodge-Muirhead system, which is purely British both as regards invention and ownership; there is

Mr. Lambert.—continued.

the Telefunken system, which is in German hands and is an amalgamation of the systems of several different inventors; there is the Branly-Popp system, which is French; the Poulsen system, a recently invented system of Danish origin. The rights in this last have been acquired for some parts of the world by the Company of which I spoke before—the Amalgamated Radiotelegraphic Company.

Chairman.

14. The respective merits of these systems will be explained by expert witnesses subsequently?—Yes, I do not propose to enter on that subject. I may add the names of two others—the Shoemaker system and the Massie system, which are both also American systems.

Sir Edward Sassoon.

15. Do you know anything about the Slaby-Arco system?—The Slaby-Arco system is one of the systems which are combined under the head of "Telefunken." That is one; and some other systems are in the same hands and are known by the general name now of "Telefunken," which merely means, as the Committee are aware, "far-sparking."

Chairman.

16. Is the use of wireless telegraphy increasing?—Yes, it is increasing very rapidly in importance as a means of communication.

17. Can you give grounds for that statement?—I may call the attention of the Committee to a list of stations which is contained in the volume of papers laid before the Committee at page 185 and following pages. That list shows what a large number of stations are already in operation in various parts of the world; and the second part of the list (page 199 and the following pages) shows what a number of stations there are which are proposed and at present in course of construction. I think it will be clear to the Committee from this that the number of stations in the world—and therefore the effective use of radiotelegraphy—is increasing very rapidly. I might also call the Committee's attention to some maps which have been prepared as a supplement to these lists showing the position of a considerable number of these stations.

Mr. Lambert.

18. How many stations are there in the world actually working?—I have not counted the number.

Chairman.

19. The numbers on those maps correspond to the numbers, I take it, referred to on page 185 of the book?—The stations marked on the map are only the more important stations. Where there are experimental stations and stations that are not doing commercial work, those have not, in all cases, been inserted; the number is so great

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Mr. H. BABINGTON SMITH, C.B., C.S.I.

[Continued.]

Chairman—continued.

great that it would have been rather difficult to insert them all without making the maps too confused. There is a distinction of colour between the stations which are open for commercial work and others. The stations which are open for commercial work are marked in red, and the stations which are not open for commercial work are marked in blue. The stations which are on the Marconi system are marked with a disc; the stations which are on other systems are marked by a cross.

20. They are not distinguished beyond the cross?—No. In some cases we had not *certain* information on what system the stations were; it therefore was more convenient to mark those as stations on "other systems."

Mr. Arthur Lee.

21. Can you say whether a large proportion of the stations are on British territory?—I think a small proportion of the existing stations are on British territory. The greatest number of them are in the United States. The Committee will see that there are a very considerable number of stations in the United States. There are also a considerable number in Italy, in Germany, Holland, Belgium, and a few in Spain and France, and a considerable number of Government stations not opened for commercial purposes in Russia.

Sir Edward Sassoon.

22. I would like to ask you how many reserved stations do the Post Office contemplate having?—I may point out generally that there is at present a preponderating number of stations on the Marconi system in Great Britain, Italy and Canada, but that in all other parts of the world, with very few exceptions, the stations are on other systems.

Chairman.

23. Then passing on, will you tell the Committee what are the principal uses of wireless telegraphy at the present time?—I will leave on one side, if the Committee will allow me, the naval and military uses, since those will be dealt with separately by witnesses representing the War Office and the Admiralty. As regards the commercial uses, they may be divided broadly into two categories—the shore-to-shore communication, and ship-and-shore communication—"shore-to-shore communication" being the general term describing the communication from one shore station to another shore station—"ship-and-shore communication" being, of course communication between a shore station and a station on a ship. As regards shore-to-shore communication, that takes the place of communication over land wires or over cables, or supplies communication in cases where the ordinary methods would be inapplicable, either on financial grounds or on material grounds. As an instance of wireless telegraphy of that category, I may mention the communication between Burmah and the Andaman Islands. The Committee will see that there are stations marked on the projecting point of Burmah

Chairman—continued.

and on the Andaman Islands in the Bay of Bengal. There the traffic is not sufficiently large to pay for the great expense of a cable. These stations, on the Lodge-Muirhead system, have been set up and have maintained quite satisfactorily an efficient communication between those points. Perhaps I ought to say that under the general heading of "Shore-to-shore communication" should be included communication with lightships, light-houses, and outlying islands. Under the definitions of the Convention a station on a ship which is permanently moored, such as a light-ship, is treated as a shore station and not as a ship station. A large number of installations of that kind have already been established both on the British coasts and elsewhere.

24. Do you anticipate that this system of radio-telegraphy will supersede ordinary telegraphy?—Prophecy is always rather a hazardous matter, but in the present state of invention, it does not seem probable that wireless telegraphy will ever be able to compete with ordinary telegraphy over land lines or that it will supersede the use of cables. There can be very little doubt that if Transatlantic Radio-telegraphy could be effected with certainty and at a reasonable speed there would be an extensive field for its employment in long distance Trans-oceanic communication, but, I should think, as a subsidiary method to cables, and not, so far as one can see at present, in substitution for cables.

Mr. Lambert.

25. For war purposes?—For war purposes it would be very valuable.

Chairman.

26. Is the shore-to-shore telegraphy included in the scope of the Convention?—No. The shore-to-shore uses of wireless telegraphy have not at present reached a point at which international regulation has become indispensable; therefore stations intended for the purposes of shore to shore communication exclusively were left outside the Convention, except so far as regards the application of two particular articles to which I shall refer later.

27. The main use then of wireless telegraphy is confined at present to communication with ships?—Yes; for such communication wireless telegraphy provides an entirely new facility, and it is in that direction that the principal applications of wireless telegraphy have been made. It is the rapid development of this kind of communication by wireless telegraphy which rendered international regulation desirable. Ship-and-shore communication can conveniently be divided into three different categories: in the first place messages relating to the service or safety of the ship, such as reports of a ship's position; news of any casualty; information regarding dangers to navigation, such as icebergs or derelicts or approaching storms, and so forth; or the ship may announce beforehand her probable time of arrival in port in order that arrangements may be made for her berthing or docking,

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docking, or for cargo, and thus considerable time may be saved; then finally in the case of a stranding or collision, or fire or any serious casualty, it can be employed for summoning assistance. Messages of this class are naturally not very numerous, but they may be of the very greatest importance. That category of message generally is known as "Maritime Signalling," as distinguished from "Sea Telegraphy," which applies to the other categories of messages from ships. Sea telegraphy, comprises firstly news messages. At present a regular service of news is sent out from the high power station at Poldhu for the benefit of ships crossing the Atlantic, and I believe that a somewhat similar "News" service is now being sent out from the high power station at Nauener, near Berlin. Then, besides news messages, there are, of course, private messages from or for persons on board ships. That class of message is numerous, especially on board the large liners which carry a considerable number of passengers, such, for instance, as our Atlantic liners. The greater part of this traffic at present is in the direction from the ship to the shore, about 20 telegrams passing from the ship to the shore for every one telegram that passes from the shore to the ship. These private telegrams are at present the most numerous class of telegrams; and therefore a service which caters for them has the best chance of being remunerative. At present, therefore, it is mainly on board large liners carrying a considerable number of passengers that wireless telegraphy has been installed—apart, of course, from the Naval use of it.

28. Do you expect that the use of it on board ship will be greatly extended in the future?—Here, again, prophecy is always dangerous; but I should anticipate that as the utility of wireless telegraphy as a protection against maritime dangers is more realised a much larger number of vessels will carry wireless apparatus. Its extension to the less important liners and to the ordinary tramp steamers may not be rapid, but I should not be surprised if the day comes when an installation of wireless telegraphy will be regarded as a hardly less necessary part of the outfit of any steamer than a compass or a set of signalling flags.

29. When did the various Departments of the Government first take an interest in this invention?—The progress of the invention was carefully watched from its very beginning. Marconi's early experiments in this country were made with the assistance and co-operation of the Post Office; and by the year 1899 that system had reached a point of development at which the Admiralty thought it desirable to obtain sets of the apparatus for experiments. In 1901 an agreement of a limited character was entered into between the Admiralty and the Marconi Company, and a more extended agreement followed in 1903. The text of this agreement was laid before Parliament, and is included in the Volume of Papers laid before the Committee. (*Vide Appendix No. 1.*) Perhaps I need not enter into the detail of that, as it will no doubt

Chairman—continued.

be explained by the Admiralty witnesses who will come before the Committee.

30. Did Lloyds take any interest in a matter of this kind at that time?—Lloyds, as the principal agency for collecting maritime intelligence, was necessarily interested in an invention intended to facilitate communication with ships at sea; and an agreement was signed in September, 1901, between Lloyds and the Marconi International Marine Communication Company, which was an offshoot of the original Marconi Wireless Telegraph Company. That agreement expires in 1915. The Post Office were not parties to that agreement, and I am afraid therefore the document itself is not at my disposal to lay before the Committee. (*Vide Appendix No. 2.*)

31. Can you give any general indication of its purport?—The main point of it, I think, for the matter which the Committee is considering is that Lloyds, under this agreement, have the right to use Marconi apparatus at all their stations, and they engage to use no other, and they engage also not to use or permit the use of any other system at or in connection with their stations. The agreement has given rise to considerable differences of opinion as to its construction. Litigation has taken place between the parties, and I understand that there is further litigation at present pending. The result of that litigation has been to modify the original agreement in several respects.

Mr. Lambert.

32. Is that only litigation between Marconi and Lloyds?—Yes.

33. Not between Marconi and any Government Department?—The litigation I am speaking of is between the Marconi Company and Lloyds.

Chairman.

34. Is the litigation brought by Marconi against Lloyds, or by Lloyds against Marconi?—I think there have been suits of both characters. The agreement is of importance because of the restrictions which it imposes on Lloyds against employing any other system than the Marconi system.

35. Will the Convention tend to accentuate in any sense these differences between the two parties concerned?—The Convention, taken in connection with the agreement (to which I propose to call the Committee's attention presently) between the Post Office and the Marconi Company, would, I think, tend to solve these difficulties to a considerable extent.

36. When did wireless telegraphy first become an international question?—By the year 1903 the increasing use of wireless telegraphy for maritime purposes had raised questions of international interest, and it was by that time becoming evident that on many points regarding the interchange of messages international agreement would soon be urgently required.

37. There was a conference in 1903, was there not?—Yes, in August, 1903, a conference met at Berlin on the invitation of the German Government. Great Britain was represented at that conference

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conference by delegates from the Admiralty, from the War Office, and from the Post Office.

38. What generally was the outcome of that Conference?—The outcome was that all the Great Powers, with the exception of Great Britain and Italy, accepted the proposals for the international regulation of wireless telegraphy, including the obligatory exchange of messages between different systems. The British delegates at that Conference made a declaration to the effect that they must maintain an attitude of reserve owing to the position in which wireless telegraphy was at that time placed in the United Kingdom; the fact being that in the then state of the law the Government had not that complete control of wireless telegraphy which would have enabled them to enforce the provisions of the Convention. Perhaps I may explain that at that time there was no legislation especially applying to wireless telegraphy. Wireless telegraphy, being a form of telegraphy under the definition of the Telegraph Acts, came within the Postmaster-General's monopoly so far as concerned communications within the United Kingdom, or the territorial waters of the United Kingdom. The Postmaster-General was, therefore, under the existing law, able to impose conditions so far as regarded the exercise and carrying on of wireless telegraphy inside the country or in territorial waters, but he had no control whatever over communications from the United Kingdom to ships outside territorial waters or in the reverse direction. It was clear, therefore, that as the law was then, he had no such control as would have enabled him to impose the conditions of an International Convention as regards communications between shore and ships, not only within territorial waters but outside territorial waters.

Sir Gilbert Parker.

39. Had not the Postmaster-General the same power as regards messages passing between shore and ship?—No, there was no power of control at that time.

Chairman.

40. In what form were the results of that conference recorded?—The *Procès Verbaux*, or Minutes of the Conference, and the Final Protocol, which stated the conclusions of the Conference, were laid before Parliament. The Final Protocol consisted of a draft of a proposed international agreement. That is contained in the volume laid before the committee, at page 1.

41. What was the purpose of this protocol?—It was understood that this protocol was intended to form the basis of a convention to be discussed at a subsequent Conference—the Conference of 1903 having been regarded as merely a preliminary conference. It therefore became necessary for the Government of this country to consider the attitude which should be assumed with regard to these proposals, and in particular with regard to the proposal for free intercommunication between different systems, which formed one of the articles of that protocol.

Chairman—continued.

42. In what manner was this question considered?—It was fully discussed in 1903 and 1904 between the departments concerned, in particular the Admiralty, the Board of Trade and the Post Office; it was also considered by the Cables Landing Rights Committee—a committee on which those departments and also the Foreign Office, the Colonial Office, the India Office, the War Office, and the Treasury are represented. That Committee is a committee under the Presidency of the Parliamentary Secretary to the Board of Trade. After prolonged and careful consideration it was finally agreed that the principle of compulsory intercommunication should be accepted, provided that regulations were drawn up "which would, in the opinion of the Admiralty, be adequate for the purpose of exercising effective control over the general transmission of messages to and from stations in British territory, and of preventing interference and confusion."

43. That was the precise decision come to by the Departments, was it?—Yes; I am quoting verbatim the decision which was recorded at that time.

Mr. Lambert.

44. What was the date of that decision?—The date of that decision was the 24th of February, 1904.

Sir Gilbert Parker.

45. What is the meaning of that?—Compulsory intercommunication? By the phrase "compulsory intercommunication" is meant that no station should be at liberty to refuse communication with another station solely on the ground that the system of wireless telegraphy employed was a different one.

Chairman.

46. Was any action taken upon this decision?—This decision, and also the consideration given to naval requirements in times of emergency, indicated clearly the necessity for legislation to secure to the Government complete control of wireless telegraphy, and also the power of enforcing the provisions of an International Convention. A Bill was accordingly introduced by the Government and passed into law in the Session of 1904.

47. Have we got this Act before us?—The Act is included in the papers before the Committee at page 141. There is also included at page 137 the explanatory memorandum which was laid before the House in explanation of the Bill. From that memorandum it will be seen that the necessity of legislation was stated to depend in the first place on the extreme importance from the naval point of view of having complete control over all wireless stations in time of war or emergency; and in the second place, at page 139, on the third page of the memorandum, it is said that it was desirable that the Government should have these powers of control in order that it might be in a position to enter into an agreement on the subject with other countries if it should be found expedient to do

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so, and pointing out that in the present state of the law there would be no means of enforcing the conditions laid down by such an agreement.

48. This was not a private Bill, was it?—No, this was a Government Bill.

49. Was any statement made on behalf of the Government upon the Bill?—Yes. On the second reading, I think, of the Bill, Lord Stanley made a brief statement in which he stated that the principal objects of the Bill were, by regulating wireless telegraphy, to make it more useful for purposes of defence and general communication, and also to provide against the growth of a monopoly in the hands of any one company.

50. Can you tell the Committee the main provisions of the Act?—The Act was passed in the first instance for two years only, but it was renewed last Session without any modification. The Committee will see at page 145, the Act of last Session prolonging the Wireless Telegraphy Act of 1904 without modification. The general scheme of the Act is that it prohibits the installation or working of wireless telegraph apparatus in the United Kingdom or on board British ships without a licence from the Postmaster-General. It was not necessary to insert in the Act all the conditions which it was desirable to impose in regard to the occupation of stations in time of emergency, the observance of an International Convention, and so forth, because as there was a complete prohibition against the working of wireless telegraph apparatus without a licence, all conditions of that kind could be inserted in the licence as conditions of the establishment of a station.

51. Have licences under this Act been issued?—Licences were issued under the original Act, and a return of such licences is included in the papers laid before the Committee at page 175. That return was laid before Parliament in June last year, and therefore is not absolutely up to date, but it represents the position at that time.

52. Will you indicate the provisions of the licence as to the occupation of stations in time of emergency?—Perhaps I may say that the standard forms of licence at present in use are also included in the papers laid before the Committee at page 147 and the following pages.

Mr. Lambert.

53. For how many systems have you issued licences?—In the United Kingdom?

54. Yes?—Six, I think.

55. What are the names of them?—The Marconi system, first of all; the De Forest system; the Fessenden system (the licences for the Fessenden system are at present experimental licences only); the Lodge—Muirhead system (those, again, are experimental licences); the Rochefort system, which is a French system for communication with the Channel steamers between Newhaven and Dieppe. I should correct myself in one point. There is one commercial licence issued to the Lodge—Muirhead system for the use of the Midland Railway steamers which run from Heysham to the Isle of Man.

Mr. Lambert—continued.

56. That is five you have mentioned now?—That is five.

Sir Edward Sassoon.

57. Is the Orling-Armstrong system in use in this country?—I think not. There was an experimental licence issued for it, but I believe it has not actually been worked.

Mr. Sydney Buxton.

58. Is the Poulsen system covered by the De Forest licence?—The licence issued to the Amalgamated Radio-Telegraphic Company will permit them to use the Poulsen system as well as the De Forest system.

59. That means that they are different systems?—Yes.

Mr. Lambert.

60. You said licences had been granted for six systems?—Yes.

61. You have given me the names of five?—The Poulsen system is the sixth.

62. You include that?—That I include in the six. That I think is all. Perhaps I may point out that as regards the question of the power of seizure and occupation of stations in time of emergency full powers in that respect are conferred by Clause 21 of the licence, at page 153. It is a long clause. The marginal note is: "Power to take possession of or control apparatus upon emergency." The clause is based upon the clause which is usually inserted in landing licences for cables. It gives full power to the Government to close stations, to occupy stations, or to work them in such manner as may be necessary when the Secretary of State has declared that a time of emergency has arisen. There are suitable provisions, of course as regards compensation to the licencees in such cases.

Mr. Arthur Lee.

63. That would cover the case of "strained relations"?—Yes; it is entirely in the discretion of the Government to declare when an emergency has arisen.

Sir Gilbert Parker.

64. What kind of period?—Licences are issued for various periods according to circumstances. A longer period would usually be allowed in the case of a high power station—which is more expensive to work—than in the case of ordinary stations, which are less expensive; but they cannot in any case extend beyond the present period of the Wireless Telegraphy Act, which come to an end on the 31st December, 1909.

Mr. Sydney Buxton.

65. Unless it is renewed?—It can of course be renewed, but licences cannot be issued for a longer period, because the Act only extends to that date.

Sir Gilbert Parker.

66. I notice two kinds of applications for commercial licences at page 182, page 8 of the Return. What is the difference between them?—That

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—That refers to the distinction drawn on page 2 of the Return. The No. 1 refers to “applications in respect of installations which were already in existence when the Act was passed,” and the No. 2 refers to “applications in respect of proposed installations.”

Chairman.

67. Was there any restriction on the erection of stations before the passing of this Act?—No. As I have explained to the Committee just now, before the Act was passed the Postmaster-General had no control whatever of communications passing outside territorial waters, and, therefore, it was open to anyone to set up wireless stations anywhere they liked in the United Kingdom and communicate with ships at sea or stations in foreign territory, practically without restriction.

Sir Edward Sassoon.

68. Would not that have been an infringement of the monopoly of the Postmaster-General?—Not if the communications were with a point outside territorial waters. The Postmaster-General's monopoly only extended to communications which at both ends were within the United Kingdom and its territorial waters.

Chairman.

69. Had many, or any, stations been established prior to this?—Various Marconi stations had been set up before that time, and before the passing of the Act it seemed desirable to enter into an agreement with the persons interested in existing stations regarding the acceptance of the new conditions. Negotiations were therefore undertaken with the Marconi Company, who were the owners of the only stations then actually at work; and an agreement was signed between the Postmaster-General and the Company on the 11th August, 1904, immediately before the passing of the Act.

69A. Have we got this agreement before us?—Yes, the agreement was laid before Parliament in 1906, and it is included in the volume of papers at page 129. (*Vide* Appendix No. 3.)

70. What is the nature of this agreement?

—By this agreement the Postmaster-General undertook to give facilities for telegraphic traffic and licences (when required) for certain scheduled Marconi stations for ship and shore work during a period of eight years. There were similar provisions as regards stations for long distance shore-to-shore work, but, as the Convention does not directly affect those, perhaps I need not enter into that part of the agreement. As regards ship and shore work, the Postmaster-General undertook to give licences during a period of eight years to the stations mentioned in the schedule on page 133. The company on its part entered into various undertakings, among others to make no claim for compensation in consequence of legislation or in consequence of the necessity which was about to be imposed by the Bill then under consideration of obtaining a licence for these stations. The Company also agreed (by clause 5 of the agreement) to act in agreement with

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the Admiralty as to conditions of working, for the purpose of avoiding interference in general with Admiralty signalling. They also accepted regulation as regards interference with other stations, receiving in return certain protection against interference by other stations. Those provisions are contained in clauses 3 and 11 (2) of the agreement. Perhaps I may explain that the agreement is necessarily more complicated than it would otherwise have been because it had to contemplate two possible conditions of affairs. If the Bill then before the House was not passed, licences would only be required for communications within territorial waters; if the Bill was passed, licences would be required for communications either in or out of territorial waters. The first part of the agreement—Clause 3—refers specially to the position supposing the Bill were not passed; Clause 11, which provides what was to be done in case any licence or permission from His Majesty's Government should be necessary by law for the receipt of telegrams by wireless telegraphy—provides for cases that would arise if the Bill was passed.

Sir Gilbert Parker.

71. Was there any opposition in the House on that Bill?—There was no serious opposition. Some questions were raised and certain clauses of the Bill were modified to meet the objections, but there was no serious opposition to the principle of the Bill. I think I may say there was no opposition to the principle of the Bill. There are other provisions in the Agreement, such as that only British subjects should be employed as operators at the Company's stations in the British Dominions—that Government messages should have priority and reduced rates, and that no favour or preference should be given, and so forth. The important clause to which I desire to call the Committee's attention is Clause 10. Under that clause the Companies undertook to accept, if required by the Government, in the United Kingdom and on British ships, subject to certain conditions, which are expressed at the end of the clause, the provisions of a Convention based substantially on the stipulations contained in the Protocol of the recent Berlin Conference on Wireless Telegraphy.

Sir Edward Sassoon.

72. The 1903 one?—Yes: the preliminary Conference of 1903: including provisions relating to the compulsory interchange of messages with other systems. In that case the Companies also undertook to relieve the Admiralty and Lloyds and all other persons with whom the Companies had contracted, from any obligation arising under their contracts to refuse to interchange messages with ships or shore stations in the United Kingdom so equipped, or to make any compensation in respect of the interchange of such messages.

Mr. Arthur Lee.

73. There is an important reservation there, is not there, “without prejudice to their patent rights”?—The words “without prejudice to their patent

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patent rights" appear in that clause. That, the Postmaster-General is advised, does not constitute a condition prior to the acceptance of the Convention. The conditions which are laid down as conditions which are necessary for the acceptance of the Convention by the Company, are those contained in the provisoes at the end, numbered (1) and (2). The Marconi Company have stated that they interpret those words, "without prejudice to their patent rights," as importing a condition. The Postmaster-General is advised that those words mean that the Company by accepting (if required) the obligation to inter-communicate were not to be deemed to have waived any rights that they might have in respect of their patents or in respect of proceedings against infringing systems. Obviously there is a complete difference between a declaration intended to protect the Company against the consequences of a supposed waiver of such rights and a condition for the acceptance of the Convention. The two things are obviously entirely different, and the Postmaster-General is advised and believes that if the phrase had been intended to imply a condition it would have been expressed entirely differently.

74. I daresay the Law Officers will give us a definite opinion upon the point?—I believe it is not usual to say by what particular legal authority the Government is advised, but that is the view taken—that there is no ground whatever for the view put forward by the Company that those words imply a condition prior to the acceptance of the Convention which they undertook under the agreement, but that they mean what the words "without prejudice" generally mean—that the Company wish that this should not be taken as an admission on their part that they intended to waive any such rights.

Sir Gilbert Parker.

75. Do not the Marconi Company take a different view?—There is undoubtedly a difference of opinion.

Mr. Sydney Buxton.

76. The question has not of course arisen yet?—The question has not yet arisen; the Convention has not yet come into force.

Chairman.

77. Then it appears that the undertaking, as regards the Company itself, is limited to stations in the United Kingdom and on British ships. Can you tell the Committee what the position is as regards other parts of the British Empire in connection with it?—In almost all other parts of the British Empire the acceptance of the Convention can be imposed as a condition for the erection of stations, legislation having been passed enabling the Government of each Colony to impose conditions generally and therefore such a condition.

78. Was an invitation to a further International Conference received?—After several postponements invitations were finally issued by

Chairman—continued.

the German Government for a second Conference at Berlin in October, 1906—October last.

79. That invitation was accepted, was it not?—That invitation was accepted by the Foreign Office after communication with the various Departments concerned, namely, the Admiralty, the War Office, the Post Office, the Colonial Office, the India Office, the Treasury and the Board of Trade. I may mention that the self-governing Colonies had previously been consulted in the matter. Invitations were sent at the request of the British Government to various Governments which had not been included in the previous Conference, and in particular to Japan and Egypt.

80. Careful consideration was no doubt given to the course to be taken at this Conference?—The instructions to be given to the delegates formed the subject of the most careful consideration by the Departments and Ministers specially concerned, and of frequent and full discussion between them. The instructions given were fully and unreservedly concurred in by all the Departments which I enumerated just now.

80A. Are these instructions in a confidential document?—I believe it would be contrary to precedent, and it is considered contrary to public policy, to produce the confidential instructions to delegates; but I may say this much, that the delegates were instructed to make a *sine qua non* of every safeguard and stipulation thought necessary by the Admiralty, and that the Admiralty delegates were specially authorised to judge independently of their colleagues whether these conditions were satisfied. I may add that this provision was entirely unnecessary in practice, because throughout the Conference there was no difference of opinion whatever between the Admiralty delegates and their colleagues representing other Departments.

81. Can you give the names of the British delegates?—I have mentioned that I was myself one of the British delegates; the names of the other delegates were Mr. Gavey, the engineer-in-chief to the Post Office; Mr. Mackay, of the Post Office; Captain Bethell, representing the Admiralty; Colonel Daniell, of the Royal Marines, representing the Admiralty, and Lieutenant Loring also representing the Admiralty; and Colonel Hippisley and Colonel Davies representing the War Office.

82. Have you got a list of the names of the delegates who attended the Conference in 1903?—The delegates at the Conference of 1903 were Mr. Lamb—now Sir John Lamb—and Mr. Gavey.

83. What was he representing—Sir John Lamb?—The Post Office; Mr. Gavey and Mr. Mackay were also representing the Post Office. Colonel Hippisley represented the War Office, Captain Heath of the Royal Navy and Lieutenant Payne of the Royal Navy represented the Admiralty.

Mr. Arthur Lee.

84. None of those attended the last Conference, did they?—Mr. Gavey, Mr. Mackay and Colonel Hippisley attended the second Conference.

85. The

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Sir Edward Sassoon.

85. The Admiralty delegates were not the same, were they?—The Admiralty delegates were not the same.

Chairman.

86. What was the course of proceedings at this Conference?—The Conference met in the beginning of October and lasted about a month. The proceedings were recorded as usual in the form of *Procès Verbaux* or Minutes. Copies of these *Procès Verbaux* in the original, and also of an English translation, which is being published in this country, are placed at the disposal of the Committee. Those will be placed in the hands of the Committee at once. The documents signed at Berlin consisted of, in the first place, the Convention itself (which appears in French at page 9 of the volume, and in English at page 31), the Additional Undertaking (which appears in French at page 13, and in English at page 36), the Final Protocol, containing certain provisions which have the same force as if they were inserted in the Convention itself (which appears in French at page 15, and in English at page 37), and the service regulations (which appear in French at page 18, and in translation at page 39 and the following pages). (*Vide* Appendix No. 4.)

87. All these documents you have mentioned were signed, were they?—All these were signed. The "Additional Undertaking" was signed by various countries, but not by Great Britain.

88. And they are all before the Committee, either in this volume or to be circulated?—All the documents that were signed were contained in the volume of papers. The *Procès Verbaux* in the original and in translation will be distributed to the Committee at once.

Sir Edward Sassoon.

89. Do I understand that Italy signed the Convention?—Italy signed the Convention with a reservation which is contained in Article 6 of the final Protocol.

Chairman.

90. We shall come to that presently? Besides the documents themselves, there is also contained in the volume laid before the Committee at page 51 and the following pages, a comparison of the Text of the Convention and other documents in their final form with the original text of the draft which was laid before the Conference, and which formed the basis of the proceedings. This comparison shows the changes that were made by the Conference, and notes are added explaining the nature of the changes made, and the attitude of the British delegation with regard to those changes.

91. And at whose initiative they were made, too?—Yes—it is indicated in all cases at whose initiative the various changes were made. The comparison is printed at page 51 and the following pages of the book.

92. Will you indicate to the Committee the general scope of the Convention?—The first clause of the Convention defines the extent of its

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application. The Committee will see that on page 31 or in the comparison at page 55.

93. Perhaps it will be simpler to take the "Comparison," if the Committee want to follow you, which is page 55?—Yes. Under this clause the Convention as a whole applies in the first place to Government stations, whether on ship or shore, which are open for public correspondence between ship and shore; it also applies to shore stations established by private enterprise, which are open to such correspondence, namely, to public correspondence between ship and shore; and as regards ship stations, in the case of private ships—ships which are not Government ships—it applies to all ships whether they carry on public correspondence or not.

94. Why is a distinction drawn between ship stations and shore stations?—The scope is wider in the case of ship stations, that is to say, the Convention applies to all ship stations, whether they carry on public correspondence or not; in the case of shore stations it only applies to those which carry on public correspondence. The reason of that distinction (to which importance was attached by the Admiralty) is that a ship station which is not intended for public correspondence may, nevertheless, become a grave source of disturbance to other stations in any country in whose proximity the ship may be; and for that reason it is important that the provisions of the Convention which are intended to prevent confusion and interference should be applied to all ship stations without exception. The extension of the clause in this respect was proposed by the British Delegation and accepted by the Conference.

Mr. Arthur Lee.

95. Does that apply to men-of-war?—No; the Convention does not apply to men-of-war, except with regard to two particular clauses which I shall mention presently. The Committee will see that in the case of shore stations the shore station cannot move about and go and place itself near a station of some other country; and therefore the danger of interference arising from other shore stations is of an entirely different kind, and much less grave than the risk of interference arising from ship stations, which pass up and down, and may be constantly passing in close proximity to other shore stations.

Chairman.

95A. Does the Convention apply in any respect to naval and military stations, and, if so, can you explain why?—It is clearly laid down in Article 21 of the Convention, page 73, that "The high contracting parties retain their full liberty concerning radiotelegraph installations not covered by Article 1, and, in particular, concerning naval and military installations, which are subject only to the obligations of Articles 8 and 9 of the present Convention." Those two articles are the only articles which apply to naval and military stations, whether on shore or afloat.

96. Can you explain what is the purport of Article

B

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Chairman—continued.

Article 8 and Article 9?—Article 8 is as follows:—"The working of radiotelegraph stations shall be organised, as far as possible, in such a manner as not to interfere with the working of other stations of the kind." The Committee will observe that the obligation to refrain from interfering with other stations is qualified by the words "as far as possible"; and it was agreed by the Conference and recorded in the Minutes that those words "as far as possible" referred not merely to material possibilities or impossibilities, but also to the exigencies of naval and military service. That is to say, that if, for some naval purpose, it was necessary to take a certain course of action which might interfere with another station, that would be excluded from the operation of that Article by the words "as far as possible." With this understanding the Admiralty saw no objection whatever to the acceptance of this Article by British naval stations; and it was clearly to our interest that a general obligation of this kind should be accepted by other countries in order that the stations generally of other countries might be under an obligation not to interfere with our stations.

97. That covers Article 8?—Yes.

98. Can you explain Article 9?—Article 9 refers solely to signals of distress. "Radiotelegraph stations are bound to accept with absolute priority calls of distress from ships, to answer such calls with similar priority, and to take the necessary steps with regard to them." It is clearly desirable, in the interests of humanity, that that obligation should apply to all stations without exception, and there could be no possible objection to its being accepted by naval stations. The words at the end of the Article, "to take the necessary steps with regard to them," were added on the motion of the British Delegates, since the Article as drafted did not say that after receiving the call the station need do anything else with it.

Mr. Arthur Lee.

99. It was implied, was it not?—It was implied, but it was thought to be as well to have it clearly stated in the Convention.

Chairman.

100. Does the Convention apply in respect of communications from one country to another?—The Convention generally applies only to stations used for ship-and-shore communication. It does not apply to those used solely for communication from one country to another, known as "shore-to-shore communication," nor does the Convention, as a whole, apply to ship-and-ship communication—communication from ship to ship—except for those countries (of which Great Britain was not one) which signed the "Additional Undertaking."

Under Article I. of the "Additional Undertaking": "Each ship station indicated in Article 1 of the Convention shall be bound to intercommunicate with every other ship station without regard to the particular system of radiotelegraphy adopted by these stations respec-

Chairman—continued.

tively;" that is to say, the obligation which the Convention generally applies to ship-and-shore communication is accepted by the countries which signed this "Additional Undertaking," and which are enumerated in the Preamble of the "Additional Undertaking," as applying to communication between ship and ship. That, this country was not prepared to accept; and, therefore, the countries that desired to include that obligation in the Convention signed this separate "Additional Undertaking." The British objection was based on the difficulty of enforcing an obligation of this kind as regards two ships on the high seas, and also on doubts about imposing as regards wireless signalling an obligation which does not exist at present as regards flag signalling. One ship is under no obligation at present to receive flag signals from another ship. Naturally, as a rule, it does receive them, and, naturally, as a rule, it would receive wireless communication; but because of the position as regards ordinary signalling, and because of the difficulty of enforcing it, the British Delegation were not prepared to accept this obligation as regards British ships.

Sir Edward Sassoon.

101. Would that refer to foreign battleships?—No.

102. Those nations who have undertaken this "Additional Undertaking"—would they agree to their ships being communicated with?—It does not refer to battleships; it only refers to the ships defined in Article 1, that is to say, Government ships which carry on public correspondence, and private ships generally.

Chairman.

103. That covers your explanation of the Regulations, does it not?—Of the "Additional Undertaking."

104. Of the "Additional Undertaking"? Now, what do you regard as the main object of the Convention?—The primary object of the Convention is to facilitate ship-and-shore communication.

105. Will you explain how this object is attained?—To enumerate the means by which this object is attained, I may say that it is (1) by international rules regarding the acceptance and transmission of telegrams; (2) by the adoption of uniform rules of working; (3) by the provision of the means of collecting charges and settling accounts between the different countries; (4) by arrangements for the publication of all information necessary for such communication; (5) by laying down rules intended to prevent interference and confusion in working, with suitable means for their enforcement; and (6) by laying down that with certain exceptions, communication must not be refused on account of differences in the systems of wireless telegraphy employed.

106. Perhaps you will take those points in succession, and explain them to the Committee?—Yes.

107. Will

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[Continued.]

Chairman—continued.

107. Will you take No. 1—the acceptance and transmission of telegrams?—As regards the acceptance and transmission of telegrams, Article 5 of the Convention lays down that each country is to take the necessary measures by means of special wires, or otherwise, for assuring rapid communication between shore stations and the ordinary telegraphic system of the country. By the application of Articles 1 and 2 of the Telegraph Convention of St. Petersburg certain general obligations are imposed on all countries. Article 17 of the Convention specifies certain articles of the Telegraph Convention of St. Petersburg which will apply to International Radiotelegraphy. Those articles are printed separately on the fly-leaf, which is inserted opposite page 35 of this volume. (*Vide* Appendix No. 4.) Article 1 of the Telegraph Convention—which is couched in very general terms—recognises the right of all persons to correspond by means of the International telegraphs; and under Article 2 the adhering country undertakes to adopt all necessary measures to ensure the secrecy and prompt despatch of messages. The effect of these two Articles is that all countries adhering to the Radiotelegraphic Convention and all ships of adhering countries which are open to general public correspondence are required to accept and forward the correspondence of all persons alike. It is a general obligation securing freedom of correspondence for the public. Then, to come back to the Convention itself, there are two Articles—Article 14 of the Convention and Article IX. of the Regulations—which deal with a case where a radiotelegram is transmitted in part through stations or over the wires of non-adhering countries. For the adhering countries there is the general obligation to forward correspondence which is contained in the St. Petersburg Convention; but these Articles—Article 14 of the Convention and Article IX. of the Regulations—are intended to meet the case where a telegram passes through the hands of a non-adhering country. The object of these Articles, and the object of the British Delegates in dealing with those Articles, was to secure, as far as possible, freedom of transmission in such cases.

108. Have we any interest in provisions relating to non-adhering countries?—Great Britain has a special interest in that point, for this reason, that the question of the Colonies arises. Under Article IX. of the Regulations (which was Article VI. of the Regulations as originally drafted) it would be left open to other countries to refuse the further transmission of a radiotelegram received from a ship at a coast station of a non-adhering colony, and sent on through the United Kingdom. For instance, supposing that Newfoundland did not adhere, then if a telegram was received at a station in Newfoundland from a ship for an address in Austria, say, and it was sent over the cables through England, England would not have been able to require the continental countries concerned to send this message on; they might have refused the transmission of this message on the ground that it was received through a non-adhering country. That evidently would have placed

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Great Britain in the very invidious position of being unable to secure the further transmission of a telegram coming from one of her own colonies.

Mr. Arthur Lee.

109. I do not quite understand you when you speak of Newfoundland as a “non-adhering country.” I thought it had no status on this Convention?—Yes, each colony is at liberty to adhere or not to adhere. If Great Britain adheres it is open to Newfoundland to adhere or not to adhere.

110. Self-governing colonies?—Self-governing colonies and other colonies. As I propose to point out presently, there are express provisions in the Convention making it clear that in such cases a colony can adhere or decline to adhere entirely independently of the Mother Country. (*Vide* Appendix No. 5.)

Sir Edward Sassoon.

111. Does that apply to Crown Colonies?—Yes, that applies to all Colonies, so that a case might arise—though very likely it would not—in which Great Britain, being itself an adhering country, had to deal with telegrams received at a coast station of a non-adhering Colony. Clearly it would be very undesirable, if in such a case Great Britain was not able under the Convention to secure the further transmission of such telegrams.

Sir Gilbert Peizer.

112. Is not that the position with regard to the Marconi Company and Canada for instance?—It might be.

Chairman.

113. That is clearly secured now under the Convention, is it not?—That is clearly secured now under the Convention. Under Article 14, the second paragraph: “Every radiotelegram originating at a ship station and received by a coast station of a contracting country, or accepted in transit by the administration of a contracting country, must be sent forward.” This would be the case of a telegram accepted in transit by the British Administration from the Administration of a non-contracting country; under that paragraph the other contracting countries would be under the obligation to forward it.

Sir Edward Sassoon.

114. I take it it would not apply to a non-adhering Colony endeavouring to communicate with a foreign country which has adhered; is not that so? Suppose Newfoundland, being a non-adhering Colony, wished to communicate with Germany direct?—I do not think there are any direct cables from Newfoundland to Germany.

Chairman.

115. It must pass through England?—Yes.

Sir Edward Sassoon.

116. I am talking of wireless telegrams?—I was taking a case in which a telegram received from

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from a ship by wireless telegraphy was forwarded over the ordinary wires. As regards the case of communication by wireless telegraphy direct from Newfoundland to Germany, that is shore-to-shore communication which is not in any way governed by this present Convention. Then, again, a telegram in that position—a telegram received in or from a non-adhering country—might, under the draft proposals, have been penalised in certain cases by double rates. Article XII. of the original draft read thus:—"In correspondence with coast stations of Administrations which have not adhered to the Convention the ship charge shall be fixed at double the tariff: in correspondence with ship stations of Administrations which have not adhered to the Convention, the coast charge shall likewise be doubled;" that is to say, that supposing Canada, for instance, had not adhered, then a Canadian ship wishing to communicate with, say, a French or a Spanish station, would have been charged double rates. That article, which was intended to penalise non-adhering countries, was struck out on the proposal of the British Delegation.

Chairman.

117. So that you may say that the boycotting and penalising provisions have been withdrawn from the Convention as regards non-adhering countries?—Yes.

118. That is all you wish to say as regards No. 1, I think, is it not?—Yes.

119. Now, will you proceed to explain No. 2—the rules of working?—Where it is a question of traffic between ships and shore stations of different nationalities, and under different control, it is evidently necessary to have rules of general application as regards the telegraphic signals to be used—the particular dots and dashes to be used—the manner of calling from one station to another, and the manner of answering the calls, the order and nature of the service indications, the counting of words in plain language in code and in cypher, and all other matters of that kind which are regulated for ordinary telegraphy by the International Telegraph Convention. The rules laid down in these respects coincide, so far as circumstances permit, with those of the Telegraph Convention; in fact, the whole of the service regulations of that Convention are applied by analogy to the wireless telegraph service, in so far as they are not inconsistent with the regulations of the Radiotelegraphic Convention. That is effected by Article XLII. of the Regulations: "The provisions of the International Telegraphic Regulations are applicable, by analogy, to radiotelegraphic correspondence, in so far as they are not inconsistent with the provisions of the present Regulations." On that no controversial point arises. Those regulate the ordinary methods of counting words, and so forth. Of course, it was necessary to have special rules with regard to wireless telegraphy where the methods of wireless telegraphy are different from those of ordinary land telegraphy.

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120. Will you refer us now to the particular articles which deal with the rules of working?—In the first place, I refer the Committee to Articles X. and XI. of the Regulations. These deal with the service indications, and the manner of addressing radiotelegrams. The words are not unimportant, and the articles were amended in certain respects, but the questions to which they gave rise were not in any way controversial. Article XV. lays down that the signals to be used are those of the International Morse Code. Article XVI. prescribes the signal to be used by ships in distress, and the procedure to be followed by stations which perceive those signals: and Article XVII., which was inserted at the suggestion of the United States, is intended to facilitate the use of the International Code of signals. That is the same code which is used ordinarily for flag signalling at sea. It is a Code in which a particular sentence or expression can be indicated either by particular flags or by a certain combination of letters.

121. Are there any other articles dealing with the rules of working?—Perhaps I may say with reference to the International Code that the object of that is to facilitate communication in cases where the two parties do not know each other's language. In the dictionary which interprets these signals the phrases are given in the language of the particular ship which is using the Code, and, therefore, two ships, or a ship and a shore station which have no knowledge of each other's language, can communicate intelligibly by means of this Code.

The rules of working, as regards the actual exchange of telegrams between ship and shore stations, or *vice versa*, are contained in Articles XVIII. to XXX. of the Regulations, page 99 and onwards. Perhaps I may state, without going into the detail of the rules, the general principles on which those rules are framed. In the first place, as a general rule, the ship station calls the shore station, and not the shore station the ship. The ship station must avoid breaking in upon communications already in progress, and if the call is unsuccessful it must not be renewed at too short an interval; under Article XXI., an unsuccessful call, after being thrice repeated, must not be renewed until after an interval of half an hour.

Mr. Arthur Lee.

122. That would not apply in the case of signals of distress, would it?—No, that would not apply in case of distress signals.

If several ships want to communicate at once, the shore station decides between them in such manner as to allow each ship the greatest possible amount of communication. That is provided for by Article XXIII.

Chairman.

123. Why should the decision rest with the shore station?—It is obviously necessary that a rule should be laid down as to who is to decide between the claims of various ships which want to communicate at the same time, and this can only be the shore station, since it is only the

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the shore station which is in possession of the various calls.

124. On what data does the shore station decide the order of the calls?—In order to give the shore station the materials for this decision the ship furnishes the necessary particulars as to course, speed, etc., specified in Article XXII. That procedure was proposed by the British Delegation; it is in fact the procedure at present in use in the Marconi stations, and it is found to work very well in practice. The particulars specified appear to be somewhat long, but they can be transmitted very rapidly by a brief group of figures.

125. Are there any other rules of working besides those you have already mentioned?—The other provisions of these articles to which I have referred deal with the signals to be used in transmission and reception; the intervals at which the acknowledgment signal should be repeated by the receiving station; the course to be taken if the signals cannot be read clearly, and other matters which are not controversial but on which clear and definite rules are indispensable.

126. Are there any other points not technical but of importance, bearing on the Convention?—There is one other point of great importance in Article XXX. That article lays down that, in principle, the ship station communicates with the nearest coast station. This is a provision of considerable value to Great Britain, for the course of vessels passing down or up Channel lies, in most cases, near to the British coast, and, therefore, under this article their communications must be, as a rule, addressed to British stations. It is evident that great confusion would be caused if ships close to the British coast were at liberty to address their communications to more distant stations on the other side of the Channel, and generally, if each country were at liberty to extend the radius of action of its stations so as to communicate with ships near or even beyond the shores of neighbouring countries.

Sir Gilbert Parker.

127. You spoke of "Government ships." Will you tell us exactly what you mean by Government ships?—The Convention does not apply to Government ships unless they are open to public correspondence.

128. What is meant by "Government ships"?—It would include the Navy and also any other ships which were owned by the Government, such, for instance, as the telegraph ships which are owned by the Post Office, or the Customs yachts, or the packets between Ostend and Dover, which are owned by the Belgian Government. The provisions, to which I call attention, for communication with the nearest station, in the Channel are advantageous to Great Britain and also tend to prevent the confusion which would otherwise be likely to arise. The precise effect of that provision in other parts of the world depends, of course, upon the exact circumstances of each case; but I think I may say generally that favourable points for com-

Sir Gilbert Parker—continued.

manding the main lines of traffic are in a great many cases in British possession, and that, in such cases the rule of communication with the nearest station would be favourable to stations placed at those points; in fact, it secures to British possessions the enjoyment of the advantages arising naturally from their geographical position.

Chairman.

129. So that if a ship in proximity to the British coast required to send a message to a French coast station this article would debar it doing so direct, would it?—It would debar it doing so direct, except that if the sender gives definite instructions that his telegram is to go to a more distant station the ship station is at liberty to do that provided that no interference is caused to any other station.

Sir Edward Sassoon.

130. Would that be easy to detect beforehand, whether disturbances would or would not be caused?—In most cases, yes, because they would be aware that another station in the neighbourhood was working at the time. If they were near enough to interfere with that other station they would be also near enough to perceive that station's exchange of signals; and in any case the other station would at once call their attention to it, if it was being interfered with.

Chairman.

131. We now come to the third point—Charges and Accounts. I will ask you to give an explanation of that, as shortly as possible, to the Committee; a great deal of it is technical?—That is rather a technical matter. It is dealt with in Article 10 of the Convention and Articles XII., XIII., XIV., XXXV. and XXXVI. of the Regulations. The most important point there, I think, is that under the original proposals a portion of the charge on each telegram would have been collected from the addressee. That, in our opinion, would have operated as a serious obstacle to the development of traffic, because the sender would hesitate to send a telegram for which a part of the charge had to be collected from the addressee. Cases would also arise where the addressee declined to pay the charge on the telegram. We strongly supported the view that the whole charge should in all cases be collected from the sender, as is the case with all other telegrams; and an accounting system was framed—we co-operated in framing it—which renders this possible.

132. What is the general principle of the accounting system that is adopted?—That system is, that the administration licensing the ship is responsible for the payment due to or from the ship station, and that the administration responsible for the coast station through which the radiotelegram passes raises the necessary debits or credits to other administrations in respect of each telegram. For the land transit, the accounting follows the ordinary rules.

133. Is

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133. Is the amount of the charges regulated?—The maximum is fixed at 60 centimes a word for the shore station and 40 centimes a word for the ship station. These limits are considered somewhat high for ordinary stations, but each Government has perfect liberty to fix lower limits for its own stations if it thinks it desirable.

134. Then we come to the fourth point—the arrangements for publishing the information necessary to facilitate communication. Just give the important points attaching to that as shortly as you can?—Article 6 of the Convention and Articles IV. and XXXVIII. of the Regulations deal with this matter. Article 6 of the Convention requires the contracting States to furnish the necessary particulars regarding ship and shore stations under their control. There is one point which is important. There is no obligation to communicate any information whatever about naval or military stations, and as regards other stations the only particulars to be communicated are those specified in the Regulations. Those are merely the particulars necessary to facilitate communication, such as the call signal, the range of the station, the wave lengths, the hours during which the station is open, and so forth. No disclosure whatever is required of any secret or technical details of any kind.

Mr. Arthur Lee.

135. The Admiralty station has to give no information whatever, has it?—It need give no information whatever; it is at liberty to give information for publication if it wishes to do so, but it need not.

Chairman.

136. What is the object of the enumeration of the various kinds of services in Article IV. (1) of the Regulations, paragraphs i.–vii.?—A number of different kinds of services are enumerated. It is clearly necessary that a ship should know what communications each station is prepared to receive and transmit. And that enumeration serves another purpose also—it indicates the different kind of service that may be undertaken by the stations. The object of the British Delegation in dealing with this clause, which was largely modified, was to make it clear that as many different kinds of service as possible were admitted in order that the service might be adapted in the best possible manner to the special circumstances of each case, especially in crowded waters. This enumeration makes it clear, for instance, that a particular station might be assigned for communication with a particular cross-Channel service and not with other ships, or that it might be assigned for communication with ships within certain geographical limits and not outside those limits, or with ships of certain categories. In all those cases the stations concerned would get the benefit of the international arrangements for the exchange of traffic, for accounting, and so forth. That is an important point with regard to any stations which may be exempted from the obligation to intercommunicate with all systems. Under this article, as at present drafted, those stations are definitely included among the

Chairman—continued.

stations which get the benefit of all these international arrangements.

137. Then there is Clause 2, what is the object of that?—Clause 2 permits, but does not require, the publication of information regarding naval stations or other stations not open for public correspondence. Ships of war and naval stations may desire to communicate with other ships and stations, and therefore it may be to their interest to publish certain particulars.

138. Is this likely to lead to any inconvenient results, do you think?—No, I think not, because it is the custom, I believe, for ships of war to have two call signals, one for public use, and the other for confidential use, and of course if they wished to do so they would communicate the public signals for publication in the general list. Thus if they wished to communicate with a station that station should have means of identifying the ship and knowing what ship was communicating.

Sir Edward Sassoon.

139. Are there any means of possible interception of messages—is that contemplated?—There is a general undertaking by all countries to impose on licensed operators—and all ship operators have to be licensed—an obligation of secrecy as regards messages passing through their hands; and of course, the general obligation of secrecy with regard to all telegrams applies to the wireless service also.

Chairman.

140. You mentioned Article XXXVIII. of the Regulations—what is the purport of that?—Article XXXVIII. of the Regulations, and the annexe to that article—which forms a schedule at the end of the Regulations—indicate the manner in which the particulars of the information regarding stations are to be furnished. Care was taken to word this article so as not to require the publication of any details, technical or otherwise, which it might be desirable to keep secret.

141. Then we come to No. 5. Rules for the prevention of interference and confusion. You will come to the articles in a minute. Just explain that?—This is a point naturally of the greatest importance. The article which has already been mentioned—Article 8 of the Convention—imposes a general obligation to organise the working of stations as far as possible so as not to interfere with other wireless stations. The Rules of Working to which I have already referred have constantly in view the avoidance of interference and confusion. In particular, the following rules have that in view; the rule that no call must be made while communications are in progress (Article XIX. (3) of the Regulations); the rule that a call must stop at the request of a coast station which is interrupted by it; the rule that an unsuccessful call must not be repeated except after half-an-hour (that only applies to ordinary communications); then the rule that the shore station controls the order of communication among different ships; the rule contained in Article XXVIII. of Regulations, on page 135, that “All stations are bound to

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to exchange traffic with the minimum expenditure of energy required for obtaining effective communication." The range of effect, and therefore the range of possible disturbance, is greater the greater the energy used, and therefore it was desirable to lay down that stations should not use a greater amount of energy than was necessary for the particular purpose in hand. Then there is a general rule of some importance in Article V. of the Regulations against the exchange of superfluous signals and words at any of the stations indicated in Article I of the Convention. At the present time certainly more than half—possibly two-thirds—of all the communications transmitted consist of gossip between operators, and other perfectly superfluous communications. In the general interest it is clearly desirable to prohibit that.

142. Then there are rules with regard to wave lengths to be used, are not there?—The main purpose of the rules with regard to wave lengths is to diminish interference. These rules are of considerable importance.

143. Can you give the Committee some explanation with regard to the wave lengths?—Without entering into technical detail I may explain that the waves emitted by a station have a definite length which can be measured in feet or metres, or other suitable standards of length. In the case of a wave in water the length of the wave is the horizontal distance between two adjacent crests; the distance from one crest to the next crest is the length of the wave; and similarly by suitable instruments the length of the Hertzian wave emitted by a particular station can be measured. The length of the wave can be varied within certain limits by appropriate adjustment of the transmitting apparatus, and it is possible also, by appropriate adjustments, to make the receiving apparatus specially sensitive to waves of a particular length and sensitive in a less degree, or even entirely insensitive, to waves of a different length. This method or operation of adjustment to produce correspondence between two stations is known as syntonisation; stations so adjusted are called "syntonised." From that I hope it may be clear that the use of different wave lengths offers a means of avoiding to a considerable extent, at any rate, the disturbing effect of neighbouring stations. If two stations in the same neighbourhood are using the same wave length, they will necessarily interfere with each other. If one of them is using a wave length entirely different from the other, the apparatus may, if the stations are not too close together, be adjusted so that they do not interfere with each other, that the one station is left alone by the waves emitted by the other station. It is clearly therefore to the general advantage that the available wave lengths should be distributed in the best manner for avoiding interference between neighbouring stations.

144. Is such a distribution effected by the Convention?—Such a distribution is effected by Articles II. and III. of the Regulations.

Chairman—continued.

145. We will just go through this as fast as we can—these rather technical points?—Articles II. and III. of the Regulations deal with this point. The most important point perhaps is that the wave lengths between 600 and 1,600 metres are reserved for Government use—that is to say principally for naval use. The lengths of over 1,600 metres are intended to be used for long distance stations, to which a long wave length is most appropriate. As regards the short distance stations, for ship and shore work, two wave lengths—that of 300 and that of 600 metres—are assigned to stations open to general public correspondence. The reason for limiting the number of wave lengths assigned to stations open to general public correspondence is to keep as simple as possible the arrangements necessary for ships which wish to communicate with any such stations. One idea originally was to have only one such wave length, but in that case it would have been necessary to place the stations at some little distance from each other, or otherwise they would have interfered with each other. If you have two wave lengths in use, for general public correspondence, the distance which is necessary to avoid interference between such stations is less than it would be if there was only one. Then other wave lengths below 600 metres can be used for other stations which come under the Convention, but which are not open to general public correspondence—that is to say, stations opened to restricted public service, with a cross-Channel line of ships, for instance—or stations which are exempted from general inter-communication. In such stations any other wave lengths—any wave lengths below 600 metres—are available.

146. Is any special wave length assigned to ships?—Ships will, of course, have to be able to use the wave lengths of the stations with which they desire to communicate; but it is desirable that all ships should as far as possible be able to communicate with each other if they wish to do so; and for that purpose it is laid down that all ships, except ships so small as to be unable to do so, should be able to use a wave length of 300 metres.

Sir Edward Sassoon

147. Do you consider that the systems now in vogue are adapted for the use of a standard wave length?—Yes.

Chairman.

148. The articles of the original draft have undergone considerable modification on this subject, have they not?—Yes.

149. On whose initiative was that?—The modifications in those articles were made on the motion of the British Delegation with the co-operation and association of the French Delegation, and were entirely in accordance with British views. The Admiralty, I may say, attach great importance to the reservation of the wave lengths between 600 metres and 1,600 metres for naval use.

150. Are there any provisions for securing the efficiency of ship stations?—That was another point to which importance was attached by the Admiralty.

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Admiralty. I have already mentioned that the ship stations being movable are a much more dangerous source of confusion than shore stations, and also there might be a tendency on the part of small ships to use cheap and inefficient apparatus. Article VI. of the regulations was inserted on the motion of the British Delegation for the purpose of dealing with this point.

151. What are the provisions of this article?—This article lays down that every ship station must be licensed by the Government to whose authority the ship is subject, and that no ship station shall be licensed unless the system used is a systemised system capable of transmitting and receiving at a reasonable speed (twelve words a minute is the rate specified) and not using an excessive amount of power. Every ship fitted with wireless apparatus must also have a telegraphist licensed by the Government to whose authority the ship is subject, and in order to allow him to be licensed he must have a competent knowledge of the adjustment of the apparatus, he must be able to transmit and receive by sound at a speed of at least twenty words a minute, and he must have a competent knowledge of the Regulations with regard to wireless telegraphy.

152. What security is there that this and the other Regulations will be carried out?—The difficulty as regards enforcing these Regulations mainly arises in the case of ships, because in the case of shore stations each Government is master in its own house, and we can take measures to secure that the provisions and Regulations are observed. As regards ships, the principle adopted is that each Government is responsible for the ships which it has licensed. If a ship is guilty of a breach of the Regulations information is to be given to the Government responsible for the ship, and that Government is required to take suitable measures, if necessary, by withdrawing the licence from the ship or the licence from the telegraphist if it was the telegraphist's fault.

153. Do you contemplate any difficulty on the part of foreign governments taking these necessary punitive measures?—The ships concerned would for the most part belong to a comparatively limited number of important maritime countries, and since it would be to their interests to secure the general efficiency of the wireless service I do not think the case is very likely to arise of excessive laxity or reluctance on the part of these Governments to enforce the Regulations; but suppose such a case did arise, Article VII. contains a provision to meet it. If the same ship commits repeated breaches of the Regulations, and satisfaction cannot be obtained from the Government responsible for the ship, then the shore stations are at liberty to refuse to communicate with that ship. In that case there is an appeal to arbitration, but in the meantime the ship can be cut off from communication. That I think would be quite effective if any difficulty arose with regard to the enforcement of the Regulations.

Mr. Arthur Lee.

154. How could you identify the offending

Mr. Arthur Lee—continued.

ship?—The ship, in order to communicate, has first of all to make its own call signal.

155. Did you want to communicate with it, and it does not reply, what is to happen then?—Under Regulation XIX. the ship station has to call the shore station first; the initiative comes from the ship station.

Sir Edward Sassoon.

If it does not give its name how is it likely to be called to book for breaches?

Chairman.

156. It is obliged to give its name, is it not?—You mean supposing the case of a ship which deliberately went on signalling merely for the purpose of interfering with other signals?

157. Without wishing to make a communication. It is bound to identify itself before it makes any communication, is it not?—If it wishes to communicate it is bound to give its name first of all. Of course it might break the Regulations and not give its own call signal; and if it did that a ship might escape once with impunity; but if the offence was repeated and repeated often, I do not think there would be any difficulty in identifying the ship, because after all the position of ships is known; they do not wander about in absolutely unknown positions. All ships which carry wireless telegraphy apparatus have to be licensed, and therefore all ships which carry it are known. It is not as though a ship could suddenly set up wireless apparatus and begin to disturb other wireless operations without there being any means of identifying it.

158. Now we come to No. 6: "Inter-communication between different systems." This has led to a certain amount of controversy, has it not?—Yes, it has, and it is perhaps the point which is the most controversial, and in some respects the most important of those arising under the Convention.

159. Is there any physical difficulty in inter-communication between different systems?—None. Communication between all the existing systems is possible, and constantly takes place; in fact, so far from there being any difficulty in establishing intercommunication, the difficulty is rather in the other direction—the difficulty of preventing it where it is desired to prevent it.

160. Will you state the nature of the provisions of the Convention on this point?—Under Article 3 of the Convention coast stations and ship stations are required to exchange radiotelegrams reciprocally without distinction of the radiotelegraphic system adopted by the station that is to say, a shore station of a particular system—a Marconi shore station, say—would not be allowed to refuse to interchange messages with a ship fitted with De Forest or Lodge-Muirhead apparatus merely because the apparatus was not Marconi apparatus; and similarly a ship fitted with Marconi apparatus would not be allowed to refuse to interchange messages with a shore station merely

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merely because the shore station was fitted with some other kind of apparatus.

161. Does the rule require intercommunication in all cases?—The general rule is subject to various limitations and exceptions. In the first place, Article 4 of the Convention, which was inserted on the motion of the British Delegation, makes it clear that the obligation to intercommunicate is not intended to require every station to communicate with every ship. Stations with restricted service are permitted; that is to say, a station may be designated for communication with one particular line of ships, such, for instance, as a cross-Channel service, even though that line of ships may use apparatus of one particular system. This power of employing restricted services may be of great value for dividing the traffic in places where the denseness of the traffic is such that otherwise confusion might possibly arise.

162. Are there any other exceptions?—Yes. The British Delegates, in accordance with their instructions, insisted that each Government should have the power of exempting any stations it might wish to exempt from this intercommunication.

163. What were the reasons for claiming this power?—The reasons which rendered it desirable to claim that power were, in the first place, because of the additional facility it would give for dividing the traffic in crowded parts; in the second place, because it might facilitate experiments on an extended scale with new methods or apparatus; and, in the third place, because supposing that the apprehensions which are felt by some persons as to the risk of confusion under a system of general intercommunication were realised, then it would be possible to exempt a certain number of stations and to retain an organisation based on communication with a single system only. It was also desirable to retain this power for the general reason that it is impossible to foresee the future developments of wireless telegraphy, and that therefore it is desirable to retain in our hands the power of organising wireless telegraphy with considerable liberty of adapting the means to the end. The provision proposed by the British Delegation was accepted and inserted as Article II. of the final Protocol. This lays it down that any stations may be exempted, at the discretion of the Government, subject to provision being made for a wireless service open to general intercommunication in the region in question.

Sir Edward Sassoon.

164. Was there any distance contemplated between the reserved and the Convention stations?—Absolute liberty is reserved to each Government as to the method in which this condition should be carried out. The question of the distance between exempted stations and non-exempted stations is one entirely for the discretion of the Government which exempts the station.

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Chairman.

165. Will you further explain this article?—In the first place, the right of exemption need not be exercised once for all; it can be exercised from time to time according to circumstances. It applies both to licensed stations and also to stations worked by the Government itself. There is no necessity for the stations which are to be provided for general intercommunication being exactly the same in number as the exempted stations, and also supposing there are stations already opened to the general service in sufficient numbers and certain stations are exempted, there is no obligation to provide additional stations so long as the service is provided for. That is the only condition that requires to be fulfilled.

Sir Edward Sassoon.

166. Is it optional to reduce the number of Convention stations? Suppose you started with 15 Convention stations and it was thought advisable to reduce the number, is it optional for the Government to do that without providing others?—By "Convention stations" I understand the Honourable Member to mean —

167. Non-reserved stations, I mean?—Stations which are subject to the obligations of intercommunication?—Yes.

168. Yes, there is nothing to prevent the Government reducing the number.

Chairman.

169. Provided the efficiency of the service is not affected?—Yes, and provided that any region of the sea which is served by an exempted station is also served by an intercommunicating station. The intercommunicating station need not be in the same locality as the exempted station, providing it serves the same region of the sea.

Mr. Arthur Lee.

170. Would that apply to the case of Gibraltar or Malta. It is impossible, is not it?—There are many cases to which it might apply; for instance, it is possible that a station in the Channel Islands might serve the same region of the sea as a station on the British coast.

171. But where there is no British territory contiguous, like Gibraltar, where there is only one single spot of British territory, and that of a very small area?—Then clearly there could not be room for both the exempted station and the non-exempted station unless there was a sufficient distance for two stations employing entirely different wave lengths.

172. In that case they could not carry out the Convention, could they?—In that case the Convention could be carried out by having only an intercommunicating station.

Mr. Sydney Buxton.

173. Or by intercommunication on foreign soil?—No, I think the intercommunicating station must be upon the territory of the Government concerned. In any such case, if inconvenience was likely to arise, there is a simple remedy

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remedy. Take the case of Gibraltar, for instance; if it was thought that inconvenience would be likely to arise there would be no need for Gibraltar to adhere.

Chairman.

174. Who is to judge, as far as possible, whether these conditions are carried out?—The Government concerned is the judge. That is clearly shown in Article III. of the Final Protocol. "The manner of carrying out the provisions of the preceding article is left to the Government which avails itself of the right of exemption; this Government has full liberty to decide, from time to time, according to its own judgment, how many and what stations shall be exempted. This Government has the same liberty in regard to the manner of carrying out the condition relative to the keeping open of other stations subject to the obligations of Article 3, and providing for the radiotelegraphic service in the region served by the exempted stations in such a manner as to satisfy the requirements of public correspondence." That clearly lays down that it is a matter entirely in the discretion of the Government concerned.

175. May not this obligation to intercommunicate cause them to run the risk of interfering with the development of new systems?—In order to meet that difficulty a further article was added, also on the motion of the British Delegates (Article IV. of the Final Protocol, to make it clear that the obligation to inter-communicate was not to interfere with scientific progress, and that there was no intention of preventing, by the application of that article, the use of a system, if such system should be invented, which, owing possibly to its greater perfection, would be incapable of communicating with other systems.

176. That concludes these six points, does it not?—Yes.

Sir Gilbert Parker.

177. Can you give us any idea of the distance necessary for two stations to operate with different wave lengths in the same district?—The precise distance I would rather, if I may, leave to the technical witnesses to state; but I think I should not be far wrong in saying that two stations using different wave lengths at present ought to be probably 50 miles from each other.

Chairman.

178. What part of the Convention do you propose to deal with next?—I propose to deal next with the provisions which may be described as the Constitution, and the machinery for carrying out the purposes of the Convention. That will come under the general headings of: "Adhesion and Denunciation of the Convention," "Future Conferences and Voting Power," "International Bureau," and "Arbitration."

Chairman—continued.

179. When we adjourned for luncheon you were about to deal with the provisions which come under the general description of "constitution and machinery" for carrying out the purposes of the Convention, and the first of those is under the head of "Adhesion and Denunciation of the Convention"?—Yes.

180. Will you be good enough to explain the provisions of that to the Committee?—By Article 16 of the Convention, it is provided that any Government which is not a party to the Convention may adhere to it by giving notice in the usual manner, and by Article 22 it is laid down that the Convention may be denounced by any one of the contracting parties on a year's notice, which may be given at any time; that is to say, any contracting party can go out of the Convention by giving a year's notice.

181. If then any country finds that the Convention is detrimental to its interests, it can give a year's notice and go out of the Convention?—Yes, it can go out of the Convention.

182. How does this article apply in the case of India and the Colonies?—In order that there might be no doubt whatever with regard to the right of separate adhesion and denunciation in the case of India and the Colonies, an article was inserted in the Final Protocol to make the position clear—that is Article V. This was inserted on the motion of the British Delegates. It lays down that the adhesion of the government of a country which has colonies, possessions, or protectorates does not, in the absence of a specific declaration to that effect, imply the adhesion of those colonies, possessions or protectorates. The whole of those colonies, possessions or protectorates, or each of them separately, may be the object of a separate adhesion or a separate denunciation made in the usual manner. This reserves complete liberty to each British colony to decide whether it will adhere to the Convention or not, and if a colony, after adhering, finds that the working of the Convention is in any way detrimental to its interests, then it can withdraw on giving the usual year's notice independently of the mother country or of any other colonies.

Mr. Arthur Lee.

183. Do we understand—I think you made the point before—that a colony or even a possession has then the right to stand out, even in opposition to the wishes of the Home Government?—Yes; the question of whether it adheres or not is a question to be decided in the usual manner as regards the action of the colony. If it is a self-governing colony it has complete independence of action; if it is a minor Crown colony or dependency, then its action is subject to the control of the Home Government, just as it is, and to the same extent, as it is in any other matter of importance. It is perfectly clear that separate denunciation and separate adhesion can be made on behalf of our Colonies, Possessions or Protectorates.

184. Then in practice, in the case of a Crown Colony,

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Colony, the decision is really the decision of the Home Government?—Yes—in the case of a colony like Gibraltar that would be certainly so.

Mr. Adkins.

185. The Home Government could exclude Gibraltar from the purpose of this Convention while adhering to the Convention for the rest of the Empire?—Yes.

Mr. Arthur Lee.

186. They could not exclude them in the sense of making it an exempted station?—They could adhere on behalf of that colony if they desired to do so.

Mr. Sydney Buxton.

187. As it stands at present, if this is ratified, Gibraltar will be outside of the Convention. It has the power to join the Convention at the instigation, no doubt, of the Home Government if they desire, but for the moment it is outside the Convention. Even if the Convention is ratified, it will be a question then for the Home Government to decide whether Gibraltar or any other colony under its jurisdiction (Crown Colonies)—will adhere or not?—That is so.

188. It does not adhere because of the Convention; it would have to adhere separately?—The Convention would not apply to Gibraltar unless separate adhesion were made on behalf of Gibraltar.

Chairman.

189. Would all other Crown Colonies be affected in the same way—Hong Kong and Singapore, for instance?—The case would be exactly the same.

190. The same as Gibraltar?—A separate adhesion would be necessary on behalf of each of them if they wanted the Convention to apply.

Mr. Adkins.

191. Would it apply to the Channel Islands?—I think the Channel Islands are included in the "United Kingdom."

Mr. Arthur Lee.

192. But we gave no sort of undertaking, did we, that we would, generally, make our Crown Colonies adhere?—Absolutely none; that is left entirely open.

Mr. Sydney Buxton.

193. And very clearly so by this declaration?—Yes; this article of the Protocol makes it absolutely clear that there is perfect liberty in that respect.

Chairman.

194. You have got a clause clearly indicating that, have you not?—Yes, Clause V. of the Final Protocol.

195. You propose to deal next with the question of future Conferences and the voting power, do you not?—Yes. Article 11 of the Convention deals with that point—Under that article conferences are to be held

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Chairman—continued.

from time to time for considering changes in the Convention or in the Regulations, each Conference fixing the date of the succeeding Conference. This provision agrees generally with the practice followed in the case of the Telegraph Convention and the Postal Convention, the main difference being that in the case of the Telegraph Convention the Convention itself, which is couched in very general terms, is regarded as unalterable; it goes on, unaltered, while modifications are made in the Regulations. Under this Article 11 common consent is necessary for modifying the provisions of the Convention—that is to say, strictly, unanimity is required for any modification, and any country which finds a proposed change seriously detrimental to its interests has in that way the power of practically imposing a veto on modifications. In matters which are not of vital importance, the practice in the case of the Telegraph Convention has been for the minority to accept the views of the majority; and therefore, in order to provide for conducting the business of the Conferences, it is necessary to determine the question of voting power at these Conferences.

196. How do you distinguish what is a vital and what is not a vital matter?—That would be a question entirely for the appreciation of each country. If a country attached sufficient importance to the retention of a particular provision to regard it as a vital matter, then it would impose its veto, which would practically mean that if the other countries wished to go on with the change they would have to make a fresh Convention of their own leaving out the country which objected. This gives each country a power of practically stopping any changes in the Convention which it regards as detrimental in a very serious degree to its interests.

197. Then as regards the voting what do you say?—As regards the voting power the provisions are contained in Article 12. Under the original proposal in the draft laid before the Conference by the German Government (Article 15 of the original draft) each country was to have one vote only. That was obviously unacceptable from the point of view of the great autonomous Colonies and Dependencies such as Australia, Canada, or India.

198. How is this question of votes dealt with in the Telegraph and Postal Conventions?—Two different systems are in force in the case of those two Conventions. Under the Telegraph Convention each country is at liberty to claim votes for any Colonies or Dependencies which adhere, and in that way full satisfaction can be given to the legitimate demands of Colonies; but that system has this drawback, that there is no protection whatever supposing any country should claim votes on behalf of colonies whose importance was not sufficient to justify the claim of a separate vote on their behalf. Under the Postal Convention, on the other hand, the votes are assigned by name under an article of the Convention to those Colonies to which the Conference decides that votes should be given. That list can be and is altered from time to time by decisions taken at the Conference.

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199. What

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199. What is the present assignment of votes at the Postal Congresses?—The present assignment of votes is six to Great Britain. The Mother Country represents also the interests of Colonies that are not important enough to have a separate vote; there are six votes, one for the Mother Country representing also the unimportant Colonies, and one each for India, Australia, Canada, New Zealand, and South Africa. The number of votes was increased by one at the last Conference (at Rome), last year, the additional vote being for New Zealand.

Mr. Arthur Lee.

200. That is postal arrangement, is it not?—That is the Postal arrangement. Then also under the Postal Convention, France has three colonial votes, Germany, Holland, and Portugal have two each, and the United States, Denmark, Spain, and Italy have one each.

Sir Gilbert Parker.

201. Newfoundland has not a separate vote, has it?—Newfoundland has not a separate vote. At the recent Conference the British Delegation proposed, first, the adoption of the system of the Telegraph Convention with a maximum limit of seven votes for the votes of any country together with its colonies and possessions.

Mr. Arthur Lee.

202. Do you say that they proposed there should be only seven?—We proposed the system of the Telegraph Convention with a limit of seven votes, and we indicated at the same time that if the Conference was not prepared to accept the system of the Telegraph Convention (to which we ourselves saw that there were certain objections) we should be prepared to adopt the system of the Postal Convention, which in practice has worked satisfactorily from the British point of view.

Mr. Adkins.

203. Might we know how many votes we have on the Telegraph Convention? We have been told how many we have on the Postal?—On the Telegraph Convention at present there are nine votes,—the United Kingdom, India, Ceylon, Australia, New Zealand, Cape Colony, Natal, the Transvaal and the Orange River Colony.

Mr. Sydney Buxton.

204. How many had France?—France has six under that Convention.

205. And Germany—could you tell the Committee how many it has?—Under the Telegraph Convention Germany has no colonial vote, because the Colonial Administrations are subject to the central administration. They have not hitherto claimed separate votes, but it would be open to them by a change of system to claim a number of separate votes for a number of unimportant colonies.

Chairman.

206. Do you know the names of the places that represent the six votes of France?—The six under the Telegraph Convention are:—Indo-

Chairman—continued.

China, Senegal, Madagascar, Tunis, New Caledonia, and the Mother Country, that making the six.

Mr. Sydney Buxton.

207. And under the Postal Union they have three, have they not?—Under the Postal Union France has three Colonial votes.

Mr. Adkins.

208. As well as one for the Mother Country?—As well as one for the Mother Country.

Mr. Lambert.

209. Four?—Four in all.

Mr. Arthur Lee.

210. Can you say why the British delegates proposed a less number of votes than we receive under the International Telegraph Convention?—Because there was evidently a general feeling in favour of some maximum limit of votes, and having regard to the probable importance or unimportance in each case of wireless telegraphy it seemed perfectly reasonable to impose a limit not exceeding seven.

211. They took into account that by that means at least one of the self-governing colonies would necessarily be excluded?—That was taken into account—yes. In the case of the South African Colonies they have found it quite satisfactory to co-operate in a single group. That is the position in the Postal Union; and there seemed to be no objection to adopting a similar provision in the case of the Wireless Telegraphy Union.

Sir Gilbert Parker.

212. Have Newfoundland made any representation as to being excluded from a vote?—No; Newfoundland has not made any so far as I am aware, either with regard to the Postal Convention or with regard to the present Convention. In the case of the Telegraph Convention, Newfoundland does not adhere.

Chairman.

213. It does not vote?—For this purpose at Postal Congresses it is represented by the Mother Country.

214. In the same way that a Crown Colony is?—Yes.

215. You base your limit upon the present number of British votes in the Postal Union. The limit of seven would really be one more than in the Postal Union, and therefore would have allowed for a vote to Newfoundland, but it would have left the South African Colonies grouped as they are?—Eventually the article was adopted on the model of the article in the Postal Convention, the maximum limit being fixed at six instead of seven as we had proposed. That limit was based on the present number of British votes in the Postal Union, and if all the great Colonies and India adhered to the Radiotelegraphic Convention there could be practically no doubt that a similar allotment of votes would be made to them

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them at the next Conference. That distribution of voting power has been found satisfactory in the Postal Congress, and, therefore, there seems to be no reason why it should not be satisfactory in the Radiotelegraphic Conferences; but if in future the limit should be found inadequate for any reason, there is nothing to prevent Great Britain from bringing forward proposals for modifying the limit.

216. At the expiration of the Convention?—At the next Conference, or any future Conference.

Mr. Arthur Lee.

217. Can an alteration be made at the next Conference?—Yes; the alteration could not be made so as to come into force before the next Conference; it would apply to everything subsequent to the next Conference.

Sir Gilbert Parker.

218. Is any time fixed for the next Conference?—It was fixed by the decision of the Conference as 1911—in five years.

219. Every five years automatically?—No; each Conference fixes the date of the assembling of the next Conference, that it is to say, the next is fixed for four years from now.

Chairman.

220. Were the particular colonies specified at the Berlin Conference to which votes were to be assigned?—No, it was impossible to assign votes by name to particular Colonies, because at that time it was not yet known what Colonies would adhere and what Colonies would not adhere; but in order that this might not deprive Colonies of the power of voting at the next Conference, a provision was inserted on the motion of Great Britain making the assignment of votes the first business at the next Conference. The decision as to the assignment of votes was to come into effect at once and to be operative during the next Conference; that is to say, the Colonies to whom votes are assigned at the beginning of the next Conference would exercise those votes during the whole of the next Conference.

Sir Gilbert Parker.

221. In that case Germany would very likely make representations with regard to her Colonies requiring Colonial votes; she has not done so, as I understand, so far?—Representations to whom?

222. The German Colonies—her own Colonies?—That question, of course, does not arise until the proposals are circulated—the motions to be brought forward at the next Conference. When that time comes we, of course, should circulate proposals for votes for our Colonies, and Germany would circulate proposals for any votes which they might wish to ask for for German Colonies.

223. But she has made no request so far for votes for her Colonies?—The time has not arisen.

Sir Gilbert Parker—continued.

224. I am referring to past Conferences: did she make representations then?—No; she made no representations with regard to specific requests for votes for specific colonies. She, of course, could—as we could—discuss the general provision with regard to Colonial votes, but the time for bringing forward specific motions as regards votes, will be when the next Conference approaches. As notice has to be given of motions beforehand, there is an opportunity of discussing the matter with other countries and obtaining any necessary support for our proposals.

Mr. Gwynn.

225. What maximum number of votes has been assigned to Germany?—The maximum of six applies to each and to every country, but of course it does not follow that countries which have not important Colonies would claim or would be assigned by the Conference votes up to the full number of six.

Mr. Arthur Lee.

226. Do you mean that the Conference has power to decide whether the Colony is or is not of sufficient importance to have a vote?—Quite so; and that is the manner in which votes are at present assigned in the case of the Postal Convention.

Mr. Adkins.

227. Only that no Power may have more than six votes for its Colonies in addition to its own?—With its own—a total of six.

Chairman.

228. It is a question of proportion; the votes that are to be assigned to the respective countries is a matter of very great importance, is it not?—It is undoubtedly a matter of importance, but I think it is quite possible to exaggerate its importance, because although questions are technically decided by vote, still important countries carry a weight in the decisions of the Conference, which is entirely independent of the number of votes which they command. Moreover if the Conference was inclined to carry modifications seriously injurious to the interest of an important country, that country always has the resource of threatening to withdraw, or, if necessary, of withdrawing from the Convention.

Mr. Arthur Lee.

229. Would it not be very difficult to withdraw after once going in?—If there was any serious injury to national interests threatened, I do not think there would be any grave difficulty in withdrawing.

Chairman.

230. On a year's notice?—On a year's notice.

231. Then we come to No. 3—the International Bureau. Can you tell the Committee the object of that Bureau?—It is necessary to have some central agency for collecting and distributing information—such information as is supplied by the Contracting Governments—
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and also for the preparation of the International list of stations. An International Bureau for these purposes is created by Article 13 of the Convention, and its constitution and functions are further defined by Articles XXXVII. and XXXVIII. of the Regulations.

232. The Committee will be able to read those for themselves without asking you to explain them?—Yes.

233. Where is the Bureau to be situated?—It is to be situated at Berne; it will be a branch of the International Bureau of Telegraph Administrations the Bureau which is already in existence for the business of the International Telegraph Union. The Director of that Bureau is Swiss by nationality.

234. Is it representative of the Contracting Powers?—No, it is not composed in any way of representatives of the various countries, and the countries have no votes in connection with the International Bureau. No question of voting power arises in connection with it.

235. What are the powers of the Bureau?—Those powers are extremely limited. It has absolutely no initiative or executive power of any kind, and no control whatever over the action of the respective Governments; it has no power to lay down any rules, and it is not even authorised to express an opinion as to the interpretation of the Articles of the Convention.

236. What will its work be?—Its principal work will be the preparation of the International list of stations. That list all the ship and shore stations must possess in order to have the necessary particulars with regard to the stations with which they may have to communicate. Its duty will also be to circulate to all the adhering Governments any information that may be communicated to it for that purpose by an adhering Government—such as changes in rates—the opening of new stations—changes in the nature of the services rendered by different stations—any information of that kind.

Sir Gilbert Parker.

237. Its work is purely clerical apparently?—It is purely clerical and for the purpose of centralising and circulating information.

Mr. Arthur Lee.

238. That is its position at present?—That is the position of the Telegraph Bureau as regards the Telegraph administrations, and under this Convention the position of the Wireless Telegraph Bureau will be exactly the same; it will have no greater powers and no greater functions.

239. Do you anticipate that its powers will have to be greatly extended in future if the system is to be workable?—No, I do not see any reason why its powers should be extended.

Chairman.

240. Do you apprehend any danger that the Bureau will exceed its proper functions as at present constituted?—No. There appears to have been in the Press and elsewhere a good

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deal of misconception in regard to the functions of the Bureau and a good deal of groundless exaggeration on the subject.

Mr. Lambert.

241. Is there any Bureau analogous to it at the present moment in existence?—Yes—the Telegraph Bureau and the Postal Bureau are precisely analogous. They perform precisely the same functions as those which it is proposed to assign to this Bureau.

242. Where are their headquarters?—At Berne.

243. So that this follows a precedent set by the Postal and Telegraph Bureaus?—Precisely; it will be an annexe to the existing Telegraph Bureau.

Chairman.

244. Has Great Britain a representative in the Telegraph Bureau?—No; there is no question of representation at all, it is purely neutral.

245. Consisting merely of local officials of the country?—It is merely local officials at Berne who are appointed by the Swiss Government, and naturally occupy a perfectly neutral position.

Sir Gilbert Parker.

246. What staff does it consist of?—There is a director, a deputy director, and possibly half a dozen clerks. That is, I think, about the extent of it.

Mr. Sydney Burton.

247. Have the Postal or Telegraph Bureaus ever claimed or exercised any control since they were first formed?—They have never claimed or exercised in the slightest degree any sort of control. I believe the Telegraph Bureau did on one occasion venture to give something like an authoritative interpretation to some provision of the Convention, and it was severely snubbed in consequence; but with that one exception, I believe there has been no case of their attempting to go beyond the functions assigned to them.

Mr. Lambert.

248. Has there been any friction arising between those Bureaus since they have been established, and the respective Governments?—None whatever, so far as I am aware, except, possibly, in this one unimportant case where the Telegraph Bureau somewhat exceeded its proper functions.

Chairman.

249. But if any complaint was made by any of the Governments in the Convention as to the inability on the part of the Bureau to carry out even the slender work suggested that it has to discharge, to whom would the Government apply? Would it be to the Swiss Government, they being the masters of the officials?—If that inability arose from insufficiency of staff, then I take

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take it that a suggestion would be made to the Swiss Government; if it arose from the limitation of the Bureau's functions, that would be a matter for a future Conference. The Swiss Government would have no power whatever of enlarging the powers and functions of the Bureau; the Bureau itself would have absolutely no power to enlarge its own functions.

Mr. Arthur Lee.

250. The next Conference could confer on the Bureau any additional powers it chose, could it not?—Yes; but if Great Britain thought it was conferring powers to an undesirable extent, it could exercise its veto or in the last resort could leave the Convention.

251. You say it can exercise a veto?—Yes, because for an alteration of the Convention unanimity is necessary.

Mr. Sydney Buxton.

252. At any future Conference?—Yes.

Sir Gilbert Parker.

253. By whom is the cost of the Bureau borne?—The cost of the Bureau is borne by the adhering countries in certain proportions. Roughly, I should calculate that the share of the expense falling on Great Britain would be about £100 a year.

Mr. Lambert.

254. What does it cost altogether?—The total cost is limited by Article XXXVII. of the Regulations to a maximum of 40,000 francs per annum—that is to say, 1,600*l*.

255. Is that all it is going to cost altogether?—That is the maximum which it can cost under the Convention.

Chairman.

256. Under its original establishment?—Yes. If that sum were found insufficient it would be open to future conferences to increase it, but that was the amount that was considered sufficient by the last conference.

257. Now, "arbitration." What are the provisions regarding arbitration?—The Draft Convention contained a clause making arbitration compulsory in all cases of dispute between two or more of the contracting parties at the demand of any of the parties. That is Article 22 in the original draft. It becomes Article 18 in the final text. It was evident that questions might arise under the Convention affecting national interests of high importance, and that a provision making arbitration obligatory in such cases might be open to grave objections. On the motion of the British Delegates an alteration was made in the article, making arbitration optional, that is to say that the consent of all the parties to a difference of opinion was necessary. Perhaps I should add that an exception was made for cases arising under Article VII. of the Regulations—that is to say a case where communication was refused to a ship that had persistently infringed the Regulations.

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In that case it was thought fair to allow the ship that was excluded in this way an appeal to arbitration. In such cases it was evident that no questions of grave national importance could arise, and therefore the British Delegates agreed that in that case the ship should have an appeal to arbitration.

258. Then there are some other points, I think, on this that you desire to call the attention of the Committee to, are not there?—Yes, a few miscellaneous points.

259. First, as regards restriction on the choice of the radiotelegraphic system, or the apparatus to be employed?—That is a matter which is dealt with in Article I. of the Regulations. The choice of system and apparatus, whether in shore stations or ship stations, is unrestricted, the only limitation being that the installation of these stations should keep pace as far as possible with scientific and technical progress. The Committee may remember that, under Article VI. of the Regulations it was laid down that all ships should employ a syntonised system.

260. Is there any limitation as to the employment of secret apparatus?—No, none. Even at stations open to public correspondence, the particulars which are necessarily published so as to allow of communication, do not include any secret details; and also in order to allow even greater freedom as regards the employment of secret apparatus there is an article inserted in the Convention (Article 7) which allows stations which are open for public correspondence to use additional apparatus of a secret character with regard to which no information will be published; that is to say, that if there was a station open for public correspondence and it was desirable to have at that same station special apparatus of some kind for naval purposes, a subsidiary installation could be put in there, and of that installation no particulars whatever need be published.

Mr. Lambert.

261. Would not the one interfere with the other?—If they were working at the same time it might, but if one was required to be worked for naval signalling the other would be stopped while it was being worked.

Mr. Arthur Lee

262. Could they be worked at the same time with different wave lengths?—Not at present. The stations would be so close together that there would be difficulty about it. That may very likely become possible in the future, but at present I do not think it is; the one would be stopped while the other was working.

263. Even if the wave length was different?—Yes, I think there would be difficulty in working them at the same time in close proximity.

Chairman.

264. Then there are certain articles of the Telegraph Convention which are applied to radiotelegraphy, are there not?—Yes. Article 17 of the Convention applies certain articles of the St. Petersburg Convention. I have already mentioned

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mentioned the first of those articles, and the only others to which I think I need call the attention of the Committee are Articles 7 and 8. They will be found on the fly leaf, opposite page 35 of the volume. Those articles authorise arrangements for the suspension or censorship of correspondence in times of emergency and thus prevent any international questions being raised if the Government exercised such rights.

265. Then there is the "Additional Undertaking," you have not mentioned that yet, have you?—The "Additional Undertaking," which is to be found at page 77, was inserted on the proposal of the United States. They proposed originally that the whole Convention should apply to shore-to-shore communication and ship-and-ship communication as well as ship-and-shore communication. Shore-to-shore communication was rejected practically by all the other countries; nobody wished at present to include shore-to-shore communication. A number of countries wished to include ship to ship communication, but I have already explained that that raised questions of difficulty and would have imposed a rather serious obligation on ships; and the British Delegation and some other countries were not prepared to accept it.

Sir Gilbert Parker.

266. Can you tell us the objections to shore-to-shore communication that were presented by the other countries?—The objection is that that raises a number of very difficult questions with regard, for instance, to the right of any country to have any "say" as regards wireless communications which may pass across its territory. For instance, a question arose before the Conference of setting up a wireless service between England and Italy; France raised some question as to whether the two countries on each side of her had the right to use the ether over French territory for the transmission of messages. That, perhaps, is not a very practical point of view; but there is the more practical point of view that such a service would compete seriously with land wires which have been provided at considerable expense by the French Government for the service from England to Italy. That is a specimen of the class of somewhat difficult questions that arise.

267. There are no scientific objections?—No, the difficulties, or difficult questions, are rather of a practical than of a scientific character.

Mr. Lambert.

268. I think you said at the beginning of your evidence that wireless telegraphy could only supplement, and not supplant, telegraphy with wires?—That is my own impression. I state that merely as an opinion—not as a fact. That is my opinion.

Mr. Sydney Buxton.

269. It is not what wireless companies contend, is it?—I have no doubt some wireless companies would hold a different opinion.

Mr. Lambert.

270. Did the French Government, then, hold to its opinion in that particular?—As regards the extent to which wireless telegraphy might supplant cables?

271. Yes.—I do not think that they expressed any definite opinion on that point, but there was general agreement that the questions arising in connection with shore-to-shore communication are not yet so pressing as to require immediate solution,—that they are of a difficult character, and that probably the various countries will be in a better position to solve them at the next Conference, five years hence, than they were at the last Conference.

Sir Gilbert Parker.

272. Would a wireless telegram from Paris to St. Petersburg be a shore-to-shore communication?—Yes.

273. It would be a shore-to-shore communication?—Yes, it would come under that general heading. Perhaps land-to-land communication would have been the more strictly accurate term; but "shore-to-shore" is the phrase used, because the cases in which such communication has been attempted are mainly cases where the sea or ocean has to be crossed.

Mr. Lambert.

274. Then land-to-land or shore-to-shore would mean from, say, Boulogne to Folkestone, or Havre to Southampton?—Yes, or from Ireland to Canada.

275. That is shore to shore?—Yes.

276. Those are the kind of installations you are assuming, are not they?—The Convention does not apply to those installations.

Chairman.

277. The terminology includes any internal communication between two inland towns?—Yes.

Mr. Lambert.

278. Do you mean to say that communications between say, Dover and Calais would be outside the Convention?—That would be outside the Convention except as regards Articles 8 and 9; that is to say, they are under the obligation to work as far as possible without interfering with other stations, and to receive any signals of distress, otherwise they are outside the Convention; but, of course, the Governments particularly concerned have their own powers of regulating such interchange quite apart from the Convention; I mean it is entirely in our own hands to what extent we allow such interchange and under what regulations we allow it.

Sir Gilbert Parker.

279. As I understand, if France and Germany chose, they could arrange now for shore to shore communication between themselves, independently of this Convention?—France and Germany could independently arrange for communication between Paris and Berlin, say, just as we could arrange for communication between Ireland and Canada or Ireland and New York.

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Mr. Gwynn.

280. Or between London and Paris?—Or between London and Paris.

Chairman.

281. Now have you anything more to say with regard to the "Additional Undertaking."—The only additional thing I have to say with regard to the "Additional Undertaking" is that if at any future time we find it desirable to adopt it we have the power to do it; all countries can adhere to it at any future time.

282. Then there is the original draft, some of the provisions of which do not appear in the final text; what do you say as to that?—There is one article which was excised, to which I might call the Committee's attention, Article 17 of the Convention in the original draft. Article 17 of the original draft constituted an undertaking on the part of the contracting parties to boycott any private enterprise which refused to conform to the provisions of the Convention in a non-contracting state. The British Delegation strongly opposed the insertion of that article on the ground that it was contrary to equity and international comity, and that it might even require Great Britain to boycott a system which was used by one of its colonies if that colony should decide not to adhere. We proposed the omission of that article, and that was accepted by the Conference.

283. That concludes practically all your remarks on the provisions of the Convention and other documents, does it not?—Yes.

284. Now do you wish to offer any general observations as to the necessity for a Convention?—I have pointed out that wireless telegraphy is already of considerable importance as a means of communication with ships, and that its importance is likely to increase in the future, and that for that reason it is most desirable that measures should be taken to enable it to be used to the best advantage.

285. Do you think that it is desirable that its development should take place as rapidly as possible?—Yes. It is of such utility that it is most desirable to favour its development. This service of communication with ships is necessarily from its very nature an International one, since ships of all nationalities pass along the coasts of countries other than their own, and also the coasts of different countries are in some cases sufficiently near each other to raise questions regarding mutual interference of stations within range of each other.

286. Is it impossible, do you think, to attain these objects without a Convention?—I think so. In analysing the Convention I have pointed out the main provisions which were included in it for the purpose of facilitating communication and preventing interference; I do not think that in any single one of those points the object aimed at could have been attained without an International agreement.

287. Will you develop that in a little greater detail?—The first item I have enumerated is, "Rules regarding the acceptance and trans-

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mission of telegrams." That is clearly a matter which affects more countries than one, and no such rules could have been laid down except by international agreement. Then as regards "Uniform Rules of Working," each country is only in a position to impose such rules on its own shore stations and its own ships. If it is desired—as obviously it must be—that the rules should be of general application, clearly international agreement is necessary for that purpose. Then as regards the "Methods for collecting charges and settling accounts," that again is essentially an international matter, and international agreement is necessary if the service is to be carried on. Then "The publication of information," there again each country could publish information regarding its own ships and its own stations, but it would have no power to require other countries to communicate to it such information, and except by agreement and the establishment of some central organ like the "Bureau" there would be no convenient means for the distribution and publication of such information. Then again as to the "Rules to prevent confusion and interference in working," there, obviously, international agreement is essential if any such rules are to be laid down and enforced, because except by means of agreement no one country has any means of requiring any other country to observe such rules.

288. Assuming that a Convention on these points is desirable, was it necessary to include provisions regarding intercommunication?—Yes, I think so, because it may be taken as quite certain that no Convention could have been concluded without containing a provision regarding intercommunication.

289. Why has this question become a matter of controversy?—It has become a matter of controversy because on this question the Marconi Company has adopted a different policy from that adopted by all other systems. All the other systems desire that ships and shore stations should communicate with each other freely without reference to the particular system employed; but the Marconi Company have throughout followed the policy of making it a condition of supplying their apparatus that it should not be used for communication with any other system.

290. What is the object of their policy on this point?—I think that the main object of this policy has undoubtedly been to endeavour to secure a monopoly of wireless telegraphy for communication with ships. Some other grounds have been put forward, and in particular it has been claimed that the only way of securing efficiency in communication was that the operators on board the ships and those at the shore stations should be under the same control, and should work under rules enforced by a single authority; and it has also been put forward that intercommunication would have an injurious effect upon the patent rights possessed by the Marconi Company; but from my knowledge of all that has passed and of the course taken throughout by the Company I have no hesitation in saying that the main object has been to secure

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secure a monopoly by forcing all ships that pass along the British shores to use this particular system in order to be able to communicate with the British coast at all.

291. There is a close connection then between these two questions, you think?—Yes, I think the adoption of that policy by the Marconi Company has necessarily brought about a close connection between the question of intercommunication and the question of a monopoly.

292. Would a monopoly be open to objection in your view?—It would, I think, be open to most serious objections from the point of view of public interests especially if it were a monopoly in the hands of a single private company or in favour of a single system. Perhaps I might give briefly the reasons for thinking that.

293. Yes; the Committee would like to hear your reasons?—In the first place, I think there are serious objections from the scientific point of view, because a monopoly in private hands, and especially in the hands of a particular inventor and his representatives, would clearly discourage invention by other people. Other methods better than those employed by the Marconi Company may be invented. It is therefore desirable, both from the strategical point of view and the commercial point of view, that this country should not be committed to a monopoly in the hands of a system which may not necessarily be the best. Then, again, from the point of view of the shipping interest and of the general public, free competition between different systems is, I think, the only satisfactory means of preventing excessive rates or unduly onerous conditions. It may be said that the Government could control rates. Experience has shown that that is a poor substitute for free competition in such matters.

Sir Gilbert Parker.

294. Is there any agreement that the Marconi Company have which would entitle them to make the contention?—Which contention?

295. That their system should be the universal system, and that they should have a monopoly?—No, I think not. Under the Admiralty agreement, which is before the Committee, the Admiralty enters into certain engagements obliging them not to communicate with other systems if they use it for commercial purposes, but I do not think that that affords any support or justification for a policy of general monopoly, and I know of no other provisions which do.

Chairman.

296. From every point of view, do you say that monopoly is objectionable?—I think it is also specially objectionable from the point of view of the Colonies and India. If British ships have to be fitted with Marconi apparatus in order to communicate with British stations they will expect to find stations with which they can communicate in all other parts of the British Empire; that is to say, a colony would be obliged to set up nothing but Marconi stations, or if it admitted other stations then it would have to set up a Marconi station as well, or otherwise the ships fitted with Marconi

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apparatus would not be able to communicate. There are many places where there is not room enough or not business enough for more than one station; in those cases they would be practically bound to make any station which they set up a Marconi station. Perhaps I might give a concrete instance of that. It might be desirable to set up stations for communication between the West Indian Islands. These stations would be used for communication between the different islands, and also for communication with ships at sea; and if, in order to communicate with stations on the British coast, a ship had to have Marconi apparatus and nothing else, then clearly those stations would have to be Marconi stations and nothing else; that is to say, the Colonial Governments would be at the mercy of a single company as regards terms and conditions, or otherwise they would not be able to set up a station that would be of any use to them. In some cases there are existing stations on other systems. There are Lodge-Muirhead stations on the Andaman Islands. There is a Lodge-Muirhead installation working between Trinidad and Tobago. Well, under the conditions which I am supposing, if those stations were to be of any use for communicating with the British ships, the existing systems would have to be done away with, and stations on the Marconi system would have to be substituted.

Mr. Gwynn.

297. The difficulty of communication would not arise from anything connected with the apparatus, would it?—There would be absolutely no difficulty from that cause, and in remote waters where the number of ships passing is not great, there could be no objection on the ground of possible confusion in the service. The case would hardly ever arise when more than one ship was wishing to communicate at one time.

Chairman.

298. If a Marconi monopoly were established would it not ensure the retention of wireless telegraphy in the hands of a British company?—That argument has been put forward, and that might, I think, be an intelligible policy on three conditions. In the first place, that the Marconi system is and must remain far the best of all systems; in the second place, that that is the only British company deserving consideration; and, in the third place, that it is possible to carry out such a policy. If these three conditions were fulfilled, I think the policy might be an intelligible one; but it is clear that not one of these conditions is or can be fulfilled. As regards the first, it is the case that the Marconi system took the lead, and for a time it was undoubtedly in advance of all others; but other systems have overtaken it and, in some cases, actually passed it. So far as efficiency, range and reliability are concerned, there is very little now to choose between the different leading systems, while, as regards selectivity, the power of so adjusting the stations as to communicate with certain stations and not with others—I use that as a more general term than

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than "syntonisation," but syntonisation is one of the methods by which you carry out the selectivity—as regards selectivity and as regards the prevention of interference, it is quite possible that some of the other systems are now in advance of the Marconi system. Therefore, I think that the first condition—that the Marconi system is, and must remain, the best of all systems—is certainly not fulfilled. Before dealing with the second condition—the question of whether there are other British systems worthy of consideration—I go on to the third point, the question of the possibility of such a monopoly. In the present state of things it is clear that such a monopoly is an impossibility. From the list of stations put before the Committee, and from the maps which they have before them, it will be seen that the number of commercial stations on other systems throughout the world is now considerably greater than the number of Marconi stations. Most other countries have refused to permit Marconi stations to be established on their coasts, not necessarily because of any national prejudice, but because they are not prepared to accept the condition of non-intercommunication to which the Marconi Company have steadily adhered. With the exception of Italy, Great Britain and Canada, no country in the world has any considerable number of Marconi stations, whereas there are numerous stations of other systems on the coasts of the United States, France, Spain, Holland, Germany, Roumania and other countries. With that number of stations on other systems it is, I think, inconceivable that the other countries of the world would ever come into a system which would force all their ships, and consequently all their shore stations, to use a single system different from that which they employ.

Sir Gilbert Parker.

299. How many first-class systems are there?—There may be some difference of opinion as to which systems come precisely within the category of "first-class," but certainly three or four.

Chairman.

300. That will be dealt with by other witnesses will it not?—Yes.

301. Can you tell the Committee the reason why in your judgment nearly all the coast stations in Great Britain and Ireland are under the Marconi system?—Well, perhaps I should say first that not all, but a considerable majority are on the Marconi system. There are a certain number of stations on other systems. The reason is this, that as yet the Government has not licensed stations on other systems in any number. A number of applications have been received, but pending the settlement of the principle on which wireless telegraphy would have to be in future administered in this country (this being necessarily dependent to a considerable extent on the decision with regard to the international convention), it was undesirable to grant additional licences except under strict limitations. Therefore no licences

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have been granted except for experimental stations (licences have been freely granted, as, indeed, they are required to be under the Act, for experimental purposes), and a few coast stations, either for special purposes or in special situations. I may mention the station of the Amalgamated Radiotelegraphic Company, at Cullercoats, at the mouth of the Tyne, and another at Hartland Point; a Lodge-Muirhead station, for communication with the Midland Company's boats, running from Heysham; and two Post Office stations on the De Forest system which have been put up at Hunstanton and Skegness. With those few exceptions and one or two others, it was considered undesirable, in the unsettled state of policy, pending a decision as to the Convention, to license other stations than those which were already in existence before the passing of the Wireless Telegraph Act, and which, under the Post Office—Marconi agreement the Post Office were under an agreement to licence.

302. Some of the stations in the United Kingdom belong to Lloyds, do not they?—Some of the stations belong to Lloyds and Lloyds are at present under agreement with the Company to use no other system than the Marconi system at Lloyds stations, and not to communicate at those stations with ships on other systems. So far from facilitating the establishment of British stations the effect of the policy of the Marconi Company, combined with those agreements, and in particular with the agreements with Lloyds, has been to restrict to a very serious degree the extension of British wireless stations. In many cases in British possessions the only organisation which has sufficient inducement to set up a wireless station is Lloyds (Lloyds having the inducement of obtaining maritime intelligence) and under the agreement Lloyds are bound to use Marconi apparatus, and not to intercommunicate. In many cases Lloyds might have been the most appropriate agency for establishing a station, but the impossibility of their accepting intercommunication under this agreement has prevented the permission for the erection of a station being exercised. There are a number of cases of that kind; perhaps I might mention a few: Perim, Ceylon, Jamaica, St. Helena, Sierra Leone, and Mauritius. In all those cases permission would have been given—or was actually given—to Lloyds to set up a station, but subject of course to the condition of intercommunication; and not being able to accept that condition, Lloyds were unable to act upon the permission.

Mr. Lambert.

303. Why did not they accept the condition?—Because under their agreement with the Marconi Company they were bound not to accept it.

Mr. Gwynn.

304. Would you say also that the Marconi Company are unconditional in their adherence to this principle of refusing intercommunication, that they make no alternative proposal?—The only

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only case I know in which they have made an exception to it is that recently it has been announced that a station at Scheveningen in Holland, which is a station on the Telefunken system, would be able to communicate with ships fitted on the Marconi system. It is not quite clear whether that is with all ships fitted on the Marconi system or only with some ships fitted on the Marconi system; but a notification has been officially given by the Dutch Administration through the International Bureau that this station would be open to communicate at any rate with certain Marconi ships.

Chairman.

305. You have already mentioned the other British wireless enterprises? Do you desire to say anything more about them?—Yes, there are the Lodge-Muirhead system—a purely British invention in the hands of a British company; the Amalgamated Radiotelegraph Company, which has acquired the De Forest and the Poulsen systems, which is also a British company. Apart from any question of private interests it is undesirable in the public interest to exclude or discourage these other British enterprises which are concerned in wireless telegraphy.

306. Are there stations belonging to both these companies established in this country?—Yes, the Lodge-Muirhead Company has stations. The station at Heysham is a Lodge-Muirhead station. They have other experimental stations in this country, and I believe they are just about to fit up the ships belonging to the Great Western Railway Company which ply between Fishguard and Rosslare. They also, as I have mentioned, have several stations in British possessions abroad, the West Indies and British India.

307. Now assuming that this policy of the Marconi Company is mistaken, is it reasonable to require them to change it?—Yes, I think it is, because they undertook in 1904 voluntarily and in return for valuable consideration received, to accept the conditions of an international convention if required by the Government to do so. That undertaking is in Clause 10 of the Post Office-Marconi agreement to which I have already called the attention of the Committee. Under that clause the companies, as the Committee will remember, undertook, subject to certain conditions, to observe the provisions of a Convention based substantially on the original Berlin Protocol, if they were required by the Government to do so, and they also undertook to relieve the Admiralty and Lloyds from their obligations not to intercommunicate. The conditions to which that undertaking was subject are in the first place a condition with regard to additional rates. That condition the Government can and naturally will carry out. The other condition was that the Company were not to be required to give any information as to the details of apparatus. As I have already pointed out the Convention does not require any publication of details of apparatus. The information which is required to be published is not in any way of a confidential character, and

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certainly cannot be described as “details of apparatus.” There are also the words to which an Honourable Member called attention: “without prejudice to their patent rights.” I have already explained the view which the Government take of those words; perhaps I need not refer to them further now.

Mr. Gwynn.

308. I presume the Marconi Company do not take the same view as the Government as to the interpretation of those words?—No, they do not.

309. Their position, I take it, is that they hold their monopoly in right of their agreement with the Government?—No, I think that they say that they have not a monopoly and do not want one.

Mr. Adkins.

310. The Companies say that, do they?—The Companies say that.

Mr. Gwynn.

311. Well, omitting the word “monopoly,” I take it your view is, that under this agreement with the Post Office the Government is practically committed to use their apparatus, and their apparatus only?—No, I think not. I do not think they could possibly find any such provision as that in the agreement. I do not think there is any clause in the agreement which could by any possibility be supposed to bear that meaning.

312. Then they merely base their claim simply on the superior efficiency of their apparatus, do they?—Well, I think their claim rests on this, that they say that the Government undertook to license certain stations, and that it is therefore not competent to the Government to impose fresh conditions as a condition of licensing those stations. The answer to that is that in the first place the Government has undoubtedly power to impose conditions, and secondly that the companies expressly undertook by Clause 10 of this agreement to accept the Convention if required by the Government to do so. The Company appeal to certain words in that article as implying a condition which they say is not satisfied. The Government, on the other hand, hold that those words—the words “without prejudice to their patent rights”—do not create any condition as regards their acceptance of the Convention; and also I would say further that, even if they did, in the circumstances contemplated “prejudice to their patent rights” does not arise.

Sir Gilbert Parker.

313. In “Wiring” telegraphy were there differing systems contending for superiority?—I do not think any contest of the same kind arose. There have been contests in the case of telephones. There were very severe contests between different systems, but those were fought out mainly on the question of patent rights—or entirely on the question of patent rights—and one company obtained a practical monopoly for a certain number of years in virtue of their patent

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patent rights; but I do not think any contest of precisely the same kind arose, and I do not think from the nature of the case it could have arisen. There are many systems of "wire" telegraphy, but there was no possibility of using the position of one system in a particular country for forcing a monopoly on other countries. The circumstances did not render a contest of this particular kind possible.

Chairman.

314. Do you found this opinion that you have just advanced on any legal decision?—Any decision on the interpretation you mean?

315. Yes?—No, it has not formed the subject of any legal decision.

316. Merely your own opinion, I gather?—It is the advice the Government have received.

Mr. Arthur Lee.

317. It is based on legal opinion?—It is based on legal advice. I understand it is contrary to precedent to state precisely by whom the Government has been advised in any particular matter.

318. You express the definite opinion of the Government?—Yes.

Mr. Sydney Buxton.

319. It is a question of advice? There has been no question raised such as to give rise to a decision in a Court of Law?—No; no question has arisen in a Court of Law as to the interpretation of this article.

Chairman.

320. What would be the result in your opinion if this country decided not to ratify the Convention?—If this country decided not to ratify the Convention the Convention would in any case come into force. There is no reason to think that any of the other countries which signed it will refrain from ratifying it, with the possible exception of Italy. Italy made certain reservations in an article in the Final Protocol. In that case British ships and British shore stations (whether Government stations or private stations) would have no protection whatever against interference by foreign ships or foreign stations. If Great Britain stands out of the Convention it certainly is not to be expected that foreign ships or stations would take any trouble to avoid interference with British stations. On the contrary it is to be expected that in many cases they would deliberately interfere because there can be no doubt that if after taking part in framing the Convention and modifying the Convention in a number of respects to suit British views—if, after that, Great Britain declined to ratify, it must necessarily be expected that there would be a good deal of irritation on the part of other countries, and I think it would find expression in intentional interference with

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British stations. In that case no remedy would be available, because there would be no agreement on the subject; and if we made diplomatic representations to other countries, the answer would obviously be that by refraining from ratifying the Convention we had deprived ourselves of the obvious means of preventing such deliberate interference.

321. Would not there be any means of retaliation?—Well, it would be, of course, possible to retaliate; but the only result of that would be to increase the confusion; it would, in fact, be a sort of wireless war, and that is a result which would be far more prejudicial to Great Britain than to other countries. In the first place, owing to our geographical position ours are the shores with which the greater number of ships approaching European waters wish to communicate first; and also we have so preponderating a maritime interest in those waters. The general stoppage of communication which would be the result of a wireless war of that kind would for those reasons be more injurious to us than it would to other countries. In any case, supposing that such measures of retaliation took place, what would be the outcome? It is not likely that they would lead in the end to an arrangement for mutual forbearance; and in any case if they did that, mutual forbearance could only find effective expression in an agreement of precisely the kind the Committee now have before them, and the natural termination of that wireless war would be the conclusion of another wireless Convention. If the present provisions of the Convention are good—as I think they are—it hardly seems desirable to enter on a period of retaliation merely for the purpose of arriving at the same result.

322. If not ratified by Great Britain, is it certain that the Convention would remain in its present form?—No, I think that is by no means certain.

Mr. Arthur Lee.

323. It means, does it not, that for the next five years the existing state of things must continue?—No, not necessarily. By unanimity the Convention could be altered without a Conference.

Mr. Adkins.

324. When you say "by unanimity" does that mean that it could be altered by those countries which still remain in?—Yes.

Mr. Arthur Lee.

325. Without their meeting in Conference?—Yes.

326. Where is that provided for?—In Article 11 of the text finally adopted: "The provisions of the present Convention are completed by Regulations which have the same validity and come into force at the same time as the Convention. The provisions of the present Convention

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[Continued.]

Mr. Arthur Lee—continued.

Convention and of the Regulations relative thereto may be modified at any time by the high contracting parties by common consent," and then it is provided that Conferences will take place periodically; but by common consent modifications can be made under that article between Conferences.

Mr. Adkins.

327. Supposing this treaty was not ratified by Great Britain modifications could then be made by the remaining countries?—Yes, quite so. If Great Britain does not ratify, then Great Britain has nothing more to say in the matter, and the other countries can then, by common consent, modify the Convention.

Chairman.

328. By the unanimous decision of all the Powers which are parties to the Convention?—Yes; and I think it is not at all improbable that if Great Britain declined to adhere such modifications might take place. For instance, the boycotting clause might be reinserted and some of the modifications, which were inserted specially to meet the views of the Admiralty, might be excised. The provisions with regard to wave lengths might be modified. Those modifications would not only be detrimental to us in the meantime, but supposing that at any future time we wished to rejoin the Convention, as I think is very likely, it would evidently be much more difficult to put the Convention back into a form which would be suitable to us than it is to keep it in such a form.

Mr. Sydney Buxton.

329. On the other hand, if it is ratified, as it stands, I understand no such alteration could be made in it without our consent?—Quite so.

Chairman.

330. What would be the effect in the event of our standing out of the Convention as regards the erection of stations on British territory and elsewhere?—I think the effect would be this: If stations on British territory are allowed to refuse to communicate with other systems and are not subject to the rules of communication generally accepted by other countries, then evidently considerable difficulties would be placed in the way of foreign ships desiring to communicate with stations on British territory. The result of that would be that in order to obtain these facilities other countries would be forced to erect stations for themselves on their own territory; and there are very few cases in which there is not foreign territory sufficiently near to the British territory under consideration to enable that to be done. For instance, at the mouth of the Channel it is evident that stations of somewhat long range on French territory would command the whole of the entrance to the channel, which is now served by stations on British territory. If, on

Chairman—continued

the other hand, Great Britain accepts the Convention, and by the means which it provides facilitates as far as possible communication between foreign ships and British stations, then there will not be the same inducement to other countries to put the stations on their own territory; traffic will come to stations on British territory and that will tend to increase the number of stations on British territory throughout the world; whereas the effect of refusing to ratify and declining to facilitate communication would be, I think, directly the opposite. It would discourage the erection of stations on British territory, and it would encourage the erection of stations on foreign territory. It must be remembered that it is stations on British territory which are entirely under our control in time of war or emergency and that stations on foreign territory are in no way whatever under our control in such cases.

331. Now you have dealt with the various questions bearing upon the public communication; I think you have practically come to the conclusion of all your remarks on that head, have you not?—Yes.

332. Do you desire to say anything else as regards the Naval and Military aspect of the subject?—I have intentionally dealt with the matter mainly from the point of view of public communication, because that is the point of view which primarily concerns the Post Office; but I should like to say this, that at every stage of the Government's dealings with wireless telegraphy, the Admiralty and the War Office have had a preponderant voice in the decisions taken, and that Naval interests have throughout been regarded by everyone concerned—by the Post Office and by other departments—as being of paramount importance.

333. We shall have representatives before us from the War Office and the Admiralty, therefore you do not desire, I gather, to say anything in regard to that aspect?—No.

Mr. Sydney Buxton.

334. As the principal delegate at the Berlin Conference can you say how far you and your colleagues were unanimous on all the points that were raised, or whether you were unanimous or not?—There was absolute unanimity between the delegates on all points affecting naval interests, as on other points; and I may add this, that I do not think there is any conflict in this matter between the interests of public communication and naval or military interests. The Government, as I pointed out just now, have complete control over stations on British territory in time of war or emergency; it can close them or control their working or utilise them for its own purposes; anything therefore which encourages the erection of stations on British territory is a direct advantage from the military and naval point of view. Anything that would take them away from foreign territory or diminish the inducement for

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[Continued.]

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for their erection there—as I think the Convention would—would be directly to the national advantage; and if the opposite course encouraged—as I think it would—the erection of stations on foreign territory, it would be distinctly and directly detrimental from the naval point of view, because it would increase the means of wireless communication which would be outside the control of the Government in times of emergency.

Mr. Arthur Lee.

335. I understood you to say that the naval interests were recognised as being predominant; that being so, could you tell us on that point why the matter has been generally handled throughout by the Post Office rather than by the Admiralty?—Because, as regards its use for public correspondence (which is the matter primarily dealt with in the licences and the Convention), it is a matter which comes naturally under the administration of the Post Office.

Thursday, 21st March 1907.

MEMBERS PRESENT :

Mr. Adkins.
Mr. Sydney Buxton.
Sir John Dickson-Poynder.
Mr. Gwynn.

Mr. Lambert.
Mr. Arthur Lee.
Sir Edward Sassoon.

Sir JOHN DICKSON-POYNDER IN THE CHAIR.

Mr. H. BABINGTON SMITH, C.B., C.S.I., recalled; and further Examined.

Mr. Lambert.

336. When were you appointed Secretary to the Post Office—your present position?—In October 1903.

337. Have you seen the whole of the negotiations that have been going on with regard to wireless telegraphy?—Yes, since that time, October 1903.

338. Has there been any change of policy since the change of Government?—None.

339. The policy of the previous Government has been continued?—Yes, the same policy has been continued. I mentioned in my evidence—in chief a decision which was taken in February 1904 at a meeting at which the First Lord of the Admiralty, the Postmaster-General and the President of the Board of Trade were present. That decision was recorded in words which I quoted; and that has remained, so far as I am aware, consistently the policy of the late Government and the policy of the present Government ever since. The only alteration that has been made was that, on further consideration of the matter, when the instructions to the delegates were under consideration, some further stipulations and safeguards were added at the desire of the Admiralty.

340. So that both Governments have really considered this question and have come to practically the same conclusion that you have shadowed forth in your evidence?—Yes.

341. You have now an International Postal Convention?—Yes.

342. Also an International Telegraph Convention?—Yes.

343. I assume that your idea is that this Convention will follow upon something like analogous lines?—Yes.

344. Supposing, for instance, the Postal—or I will say the Telegraph—should be broken up by powers expressing their non-adherence to it, what would happen?—The result, I think, would be general chaos and very serious inconvenience to the international telegraph service. In what precise way the results would affect this country it is impossible to say without knowing under what circumstances the dissolution of the

Mr. Lambert—continued.

Union took place; but if the circumstances were such as to create telegraphic hostility to this country I think that the results might be very seriously inconvenient.

345. And would the non-adherence of this country to this Convention in your opinion lead to somewhat similar results to those that a disruption of the present Telegraphic Convention would lead to?—Yes, I think it would; and I think that the results in some respects would be even more inconvenient, because in the case of the telegraph service—which has been going on for a long time—certain principles and methods are well established and might possibly continue even if the Union were dissolved; but in the case of the wireless service—which is only now coming into existence as an international service—no fixed principles are at present laid down; and, moreover, where there is a problem of special difficulty, which does not arise in ordinary telegraphy—I mean the problem of interference—the results would be likely to be even more inconvenient and detrimental to national interests.

346. Then you are simply following now in your evidence the precedent previously set, which has been fraught with great advantage to all countries concerned, of the International Postal and Telegraph Conventions?—Yes, that is so. So far as new conditions arise in connection with the new service, of course new methods have to be devised to meet them; but the principle is identical.

Mr. Arthur Lee.

347. I gather from the whole tenour of your evidence that you are very strongly in favour of ratification, and that you consider that the Convention would be advantageous to British interests considering them by themselves?—Yes.

348. May I ask whether that was your opinion before you went to the Conference?—It was my opinion, provided that it was found possible to modify the Draft Convention in the manner in which we were instructed to modify it.

349. Then

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[Continued.]

Mr. Arthur Lee—continued.

349. Then you were not in favour of the Draft Convention in its original form?—No, I think the Draft Convention in its original form was open to very serious objections, and if it had remained precisely in that form I should have said that it was probably undesirable to vote for it.

350. In that case you would not have been prepared to ratify it?—Well, in that case I think we should not have signed the Convention, so that the question of ratification would not have arisen.

351. And in your opinion all the objectionable points were removed in the course of the Conference, that is to say, from our point of view?—Yes.

352. I understand that we cannot have the general instructions to the Delegates, communicated publicly at any rate. Can you say whether the general gist of them was that you should support the Convention if possible—that you should give your general support to the principle of the Convention?—I think I am at liberty to say that the general gist was that we were to support it if possible, as in fact is shown by the manner in which we carried out the instructions. Our instructions were to accept the Convention provided it was modified in the manner specified.

353. I presume it would be your opinion that no other power had anything like equal interests at stake?—No, I think not. I think the British interests, including the whole of the British Empire, were the most important interests at stake.

354. Therefore that no other power had anything like the same need for an efficient system of wireless telegraphy for war purposes?—No doubt that is a matter which is more important to Great Britain than to any other power, on account of her naval preponderance.

355. I presume also that you would agree that no other power at the present time is equally well equipped in the matter of wireless telegraphy?—From the naval or the commercial point of view, which does the honourable member mean?

356. Well, primarily from the naval point of view?—That is a point on which perhaps the Admiralty witnesses are in a better position to speak than I am; if I may, I will leave it to them to answer the question.

357. At any rate I may take it that it is your opinion that the British Empire has unique geographical advantages as regards the establishment of a complete system?—Yes; the British Empire certainly has unique geographical advantages as regards radiotelegraphy.

358. Would it not then be the inevitable result of ratification that the British Empire would necessarily in a sense surrender a large portion of the unique position of advantage which it now possesses as a result of its being first in the field and its geographical position?—No, I think precisely the opposite. I think if we were to refuse to ratify, with the intention of adhering to the policy of non-intercommunication, the result would be to sacrifice the advantages which the British Empire derives from its geographical position.

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Mr. Arthur Lee—continued.

359. Could you explain that without going into too much detail?—The reason for that opinion is this: If the stations which we put on British territory were not freely open to communication with the ships of the world, there would be not only an inducement, but, I think I may say, a necessity for other countries to erect stations which would be open to communication with their ships. Supposing that at all the strategical points—which are also at the same time important points on the main lines of maritime communication, such as Malta, Aden, Singapore, and so forth—the British stations were non-intercommunicating stations, there would be a strong inducement to other countries to erect somewhere in the neighbourhood stations which would be intercommunicating stations. In each of those cases sites are available on territory which is not British territory, in a position which would command very much the same section of the maritime routes as those points command. The same consideration would apply in the British Channel, a part of the world which from many points of view is most important as regards radiotelegraphy. If there are stations on the British coast open to inter-communication with ships equipped on any system, if, in fact, we facilitate as much as possible communication with the British shores, we shall get the advantage of our geographical position—we shall get the traffic; and there will be no inducement, from the point of view of traffic, to the countries which own the coasts on the other side of the Channel to set up a complete system of stations for serving ships. If, on the other hand, we closed our coasts to communication except on a single system, the inevitable result would be that a complete system of stations would be set up on the other coasts. We should have no protection against interference by those stations; they would communicate with ships throughout the whole of the Channel, and in close proximity to British stations. Thus they would not only take the traffic from us but would also block the service to the British stations. In these ways I think the effect of refusing to join the Convention would be to sacrifice the natural advantages which arise from our geographical position.

360. Would non-adherence necessarily involve our refusing to inter-communicate as long as we thought it desirable to do so?—No, I do not think it would; but the only rational ground for refusing to ratify would be if we desired to refuse to inter-communicate. If we do not desire to refuse to intercommunicate, I do not see what objection there is to ratifying the Convention.

361. The Convention makes communication compulsory, does it not?—Not in all cases.

362. Not in the case of Government stations?—No; it gives the power of exempting stations.

363. Then we will come now to that question of exempting stations. During the progress of your main evidence, I asked you a question with regard to stations like Gibraltar, Malta, Hong Kong, and so forth, and I think you stated that those being Colonies they would not have to adhere unless they wished to. Then it

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was brought out further in evidence that they would be acting under the instructions, naturally, of the Home Government, they being Crown Colonies, and therefore in effect they would have to adhere. If they did not adhere it would be necessary for the Home Government to erect stations which would serve the same region. That would be a physical impossibility in the case of points like Malta, Gibraltar, and Hong Kong; therefore in effect the result of this would be that the Government would have to adhere on behalf of the Colonies to the Convention. Is that not so?—No, I think not. The Government might decide that there was no objection to having an intercommunicating station at Gibraltar; in that case there would be no reason why we should not adhere on behalf of Gibraltar. If, on the other hand, for any reason it was decided that it was undesirable to have an intercommunicating station at Gibraltar, then we should not adhere and should not put up an intercommunicating station there, and no separate station would have to be provided. But I should like to point out that the effect of our putting up a non-intercommunicating station at Gibraltar would pretty certainly be that an intercommunicating station would be put up at Tangier or on the Spanish coast.

364. Then in your opinion it does mean that stations like Malta, Gibraltar, and Hong Kong would have to adhere and would have to become intercommunicating stations?—I speak with all reserve as to what the views of the Admiralty may be, but it appears to me that it would be advisable to make them intercommunicating stations, not for any reason connected with the Convention, but in order to remove any inducement to other countries to erect intercommunicating stations in the neighbourhood of those points. That seems to me to be a consideration which is entirely independent of the Convention.

365. Then with regard to the question of voting power, I understand that the proposition that there should be a maximum of six votes to any one country and its dependencies and colonies was made by the British delegates at the Conference?—No; the British proposal was that the maximum should be seven.

366. But it was modified, was it not, by the British delegates to six?—No; I think the limitation to six was made as a matter of fact on the motion of Hungary. We put that to the vote, and it was carried against us. We should have preferred seven, but the Conference carried a vote in favour of six, and as it was not point of vital importance or of principle we accepted that.

367. The net result must be, I presume, that two at least of the great dependencies or colonies must be without a vote—the self-governing colonies and India?—No, I think not, if the South African colonies are grouped as they are in the Postal Convention.

368. There would be one at any rate, India, Canada, Australia, New Zealand, South Africa (if you count Natal and Cape Colony as one), and Newfoundland?—Yes. That number would not have allowed a vote for Newfoundland, supposing Newfoundland adhered to the Con-

Mr. Arthur Lee—continued.

vention; but Newfoundland has no vote under the Postal Convention, and I am not aware that Newfoundland has raised any objection to belonging to the Postal Union on that account.

369. That would be hardly a parallel case I assume, would it, because Newfoundland must be of much greater importance from a wireless telegraph point of view than from a postal point of view?—Yes, I think that is the case; but at the same time if Newfoundland was in any way dissatisfied with the position there is no obligation on Newfoundland to join the Union.

370. According to your statement the inevitable result would be that you would be boycotted, and that you would be practically forced to join?—No, I think not. As the Convention has been modified, we could secure for Newfoundland a great many of the advantages of the Convention, even though she did not join it. Under the original form of the draft Convention that would not have been the case, but under the present form that is the case.

371. May I ask why the precedent of the International Telegraph Union Representation—which would seem at first sight to be more applicable to the Wireless Telegraph Convention—was not pressed for by the British delegates?—I think that there is this objection to the system of the Telegraph Union—that there is no control whatever over the action of any country which may claim votes on behalf of completely unimportant Colonies. Under that system the question of claiming votes is left entirely to the wishes, or conscience, of each country; and supposing any country was disposed to use the power in an unreasonable manner there is no protection against that. In spite of that objection, the system of the Telegraph Convention, with the liberty that it gives, was the one which we preferred, and which we tried to persuade the Conference to accept; but we recognised at the same time that there are these serious objections to it—objections which do not apply to the system of the Postal Union, in which the Conference as a whole decides what votes should be accorded, and naturally takes into account the relative importance and autonomy of the Colony on whose behalf they are claimed. As that system has worked satisfactorily and favourably to British interests in the case of the Postal Union we did not raise any serious objection to it.

372. You say that under the Telegraph Union system one country wishing to be troublesome could practically block the action of the others, but surely does not that exist in the present Convention under Article II., which you called in your principal evidence, I think, “the right of voting.” The words “by common consent” would seem to be very vague and obscure in their meaning. I understand from you that they really mean that no modification can be made in the Convention at a subsequent Conference unless the powers represented are unanimous; therefore, a power like Monaco, we will say, would in effect have the power to prevent the adoption of a modification of the Convention which all the other powers were in favour of?—In strict theory that is so; in practice it is not, as has been shown by the working of the

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Telegraph Convention. Supposing that case did arise, supposing that in spite of the relative importance of Monaco and the other powers, Monaco insisted on exercising a veto in virtue of this Article, the obvious resource would be that the other Powers would conclude a new Convention leaving out Monaco. There would be no difficulty about that.

373. I put an extreme case to you, but a more important country, like Hungary, say, which has a vote, and has no seaboard and therefore no direct interest, do you think it would be practicable for the powers to exclude her in forming a new Convention in every case?—That would always be possible as a last resource.

374. May I ask, if that is the case, if one power theoretically has the right of veto, what is the particular object we gain by having six votes?—I said, I think, in my evidence-in-chief that it is necessary not to exaggerate the importance of the question of votes; but at the same time, in matters which are not of primary or vital importance, the custom both of the Telegraph and the Postal Conferences is for the decision of the majority to be accepted. The minority, whatever their views, accept, in such cases, the opinion of the majority; and therefore in deciding ordinary current questions which are not vital the vote has a certain value; but, as I say, I do not consider it a question of primary or vital importance.

375. I understand that no point can be carried, however small, at the Convention unless the powers that are opposed to it waive their right to vote against it?—That is so; or rather I would say that having voted against it they waive their right to insist upon their position.

376. Yes: they challenge a division first?—Yes, they would challenge a division; but the division having been carried against them, they accept the verdict of the majority.

377. But the veto still remains in their hands if they choose to upset the system by voting against it?—Yes, that is so.

378. And in that event you still think that our having the six votes is an advantage?—I think it is an advantage, although, as I say, it is very easy to exaggerate the importance of the vote. Also there is this advantage, that it enables the colonies which have votes to have separate representation at the Conferences, and to give full effect to their own views on any question which arises, in the discussion as well as in the voting. With regard to the question of votes, perhaps I might point out that if Egypt adheres to the Convention Egypt would also have a vote, and it is possible that Great Britain might have some influence on the manner in which Egypt voted.

379. Was Egypt represented at the Conference?—Egypt was represented. At the suggestion of Great Britain, Egypt was invited to the 1906 Conference, and was represented; but Egypt did not sign the Convention because the Egyptian delegate was instructed to reserve the matter for consideration of the Government before signing. It is open to them to adhere at any moment.

380. You have pointed out what would be the result if we refused to adhere; you suggest that

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Mr. Arthur Lee—continued.

we would probably, in the first place, I will not say be boycotted, but we would be interfered with to such an extent that it would lead to a "wireless" war, or that there would probably be a cessation of wireless communication in our region?—Yes; at any rate a very serious interruption of wireless communication on our coasts.

381. Then in your view that fact alone, I presume, would practically force us to accept the Convention even though we might think it objectionable on other grounds?—No. There might be a Convention so objectionable that we should prefer the state of confusion which would arise rather than adhere to it, in the hope that we should obtain a Convention which would be more agreeable to our views; but when we have a Convention which is generally agreeable to our views, the confusion which would ensue if it were not accepted would undoubtedly be a strong reason for accepting it.

382. Now there is an important question I want to ask you; I do not know whether you are in a position to answer it. I do not know who else I could put it to, therefore I will address it to you as the chief British delegate. You said in answer to a question which was put to you by Mr. Lambert, that the present and the late Government were agreed in principle with regard to this matter, and I presume you would also admit that there are many Departments of State which are concerned in it?—Yes.

383. Primarily the Admiralty, I suppose, the War Office, the Board of Trade, the Colonial Office, and the Post Office are concerned more in the administrative point of view than from a national or strategic point of view?—Of course the primary concern of the Post Office is with the use of wireless telegraphy as a means of communication; but I certainly should not admit that the Post Office is not interested in its national and strategic aspects.

384. Not primarily, though of course they would not be indifferent to those aspects?—The direct concern of the Post Office as an administrative Department is naturally with the administrative aspects; but in all cases which come before us I hope we regard them, not as if the Government was a matter of water-tight compartments, but as thinking that each Department is bound to consider the national interests, especially national interests of a paramount character, such as those which concern the Navy.

385. Could you say whether it is or is not the usual practice, when several Departments are concerned in a matter of this kind and great national strategical questions are at issue, for the matter to be considered by the Imperial Defence Committee as a co-ordinate authority with a view to getting a definite decision?—I believe, so far as I am aware, it is a matter which is in the hands of the Prime Minister to decide what questions shall be referred to the Committee of Defence; therefore I should not consider it my duty to express any opinion upon what sort of questions properly come before that Committee.

386. Could you say of your own knowledge whether this matter has been referred to the

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[Continued.]

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Committee of Imperial Defence and a decision arrived at by them?—I can only say that no such decision has been communicated to the Post Office; otherwise I have no knowledge of the matter.

387. Or to the delegates?—Or to the delegates.

388. There are one or two other questions I wish to ask with regard to the Marconi aspect of the case: I presume that the Post Office considered that if the Convention is ratified it will relieve them from dependence to their present extent upon the Marconi Company?—I do not think the Post Office at present at all depends upon the Marconi Company.

389. Well, to the extent of their agreement with the company?—The agreement with the company does not in any way place the Post Office in dependence upon the company.

390. It places upon the Post Office certain obligations which I understand would be removed, in part at any rate, if the Convention were ratified?—No, the obligations of the Post Office would not be in any way modified by the ratification of the Convention. The obligations of the Post Office under the agreement are substantially to afford certain facilities for the collection and distribution of telegraphic traffic, and to license certain stations. Those obligations subsist whether the Convention is ratified or not. The ratification of the Convention would relieve the Admiralty and Lloyds from certain obligations which they are under to the Marconi Company as regards interchange with other systems; and it would bar the Marconi Company from any claim for compensation on the ground that they were required to accept the provisions of the International Convention; but it would not affect in any way the obligations of the Post Office as regards facilities for telegraphic traffic or for the licensing of stations.

391. The Convention then would be more of a relief to Lloyds and to the Admiralty than to the Post Office?—So far as relief from any obligation to inter-communicate is concerned, that is the case. The Post Office is under no obligation whatever not to communicate with other systems at any stations they may use.

392. In your opinion the result of ratification then would not be to involve the Post Office or the Government we will say, in the necessity of granting compensation to the Marconi Company for any violation of existing agreements?—No. One of the objects of the agreement was to bar any such claim to compensation.

393. Of course that point is of importance from the control point of view?—Yes.

394. What I really wish to know is this: Suppose we decide to ratify, is there any possibility that an extra charge will be thrown upon the Exchequer in the way of paying compensation to the Marconi Company?—The only extra charge that would be thrown upon the Exchequer is the charge which arises from the first condition attached to Article 10 of the Agreement, which is that for a certain limited period the Marconi Company would be entitled to an additional payment in respect of messages

Mr. Arthur Lee—continued.

exchanged with other systems. We tried at the Conference to obtain the insertion in the Convention of the provision that that extra charge should be payable by the person who sends the telegram. We were unable to persuade the Conference to accept that, and therefore this extra charge would be payable by the Government, but the amount of that charge would not be anything large. The concession is limited in time—I think it would last three years after the Convention comes into force—and the charge, on the present level of traffic, even supposing that a very large part of it were exchanged with ships of other systems, would not amount to more than £2,000 or £3,000, or something of that sort.

395. So that there is no serious question so far as compensation is concerned?—There is no serious question. Of course, it is quite possible that the Marconi Company might raise points—in fact, they have announced their intention to do so—with regard to the interpretation of the agreement, and might make claims for compensation; but no such claims could be established.

396. I take it that your opinion is fortified by advice, I do not say what advice?—Certainly.

Chairman.

397. Have you fixed the charge?—The charge is not to exceed a second rate, that is to say, the additional charge is not to exceed the amount of the original charge.

398. But it may be as much as the original charge, may it?—It may be as much as the original charge belonging to the shore station; but it only applies to shore stations in the United Kingdom.

Mr. Arthur Lee.

399. Could you explain what objection there was to our following the precedent of Italy in Article VI. of the Protocol, in which they reserved their adhesion until such time as they had made certain arrangements with the Marconi Company? What should we have lost by following that precedent?—There was no need for us to follow that precedent, because we had already made the necessary arrangements with the Marconi Company in the Agreement of 1904.

400. Beforehand?—Yes.

401. So that our position and the position of Italy are not in any way parallel in that respect?—The positions are not in any way parallel. The agreement with the Italian Government (I believe it was, as regards some important points, with Mr. Marconi personally, not with the Marconi Companies) required them not to intercommunicate with other systems; they are also not to establish stations on any other system. It was therefore necessary for Italy either to wait until this agreement was terminated or else to obtain the consent of the other party to a modification of this agreement before she could possibly adhere. Great Britain is in no way in the same position in that respect.

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[Continued.]

Sir Edward Sassoon.

Sir Edward Sassoon—continued.

402. I would like to ask you whether you expressed any view at the Berlin Conference as to the effect of compulsory intercommunication between ships and our coast service?—Yes, I expressed opinions on the subject which the honourable Member will find at p. 57 and following pages of the translation of the Proceedings.

403. Would you briefly state to the Committee what the general effects of those views were. Did you consider that that would lead to any disturbance being caused to our service?—The general effect of the observations I made was to bring forward the various reasons for which the British delegation considered that it was necessary for our country to have the power of exempting particular stations from the obligation to inter-communicate. Those reasons were of several kinds. In the first place, that a system might be invented which could not intercommunicate; in the second place, that it might be desirable to have greater liberty as regards non-intercommunication in order to reserve a possible field for experiments; and in the third place, that general intercommunication had not yet been tried in practice, and that therefore there was at any rate some risk of confusion; that the risk was greatest at the points where the traffic was most dense, and that therefore it was desirable to retain the power, supposing such confusion should be produced, to reserve certain stations which could carry on their work independently of the intercommunicating stations.

404. So that your opinion was that the compulsory obligation to intercommunicate might conceivably lead to some sort of disorganisation being caused to our service?—My opinion was that it might conceivably lead to some confusion at certain points, and that therefore it was desirable to reserve a power of having stations which would not intercommunicate.

405. Then would you regard this conceivable disturbance—even to the exempted stations—from the point of view of the present conditions of our knowledge of the science as counterbalanced by advantages?—Yes, certainly I should. If the stations were exempted, the case would not arise, because this obligation of intercommunication would not apply to those stations. I may say that, although I considered and stated then, that there is a conceivable risk of this kind, I do not consider that it is a very serious risk, provided the intercommunicating service is carried on under proper and suitable regulations.

406. So you consider that the principle of regulating our wireless service by means of this Convention is a sound principle?—Yes, I think it is.

408. In spite of the fact that some element of disturbance is likely to be introduced into the conduct of our coast service you still think so?—Yes; because the Convention in its present form provides the means of preventing that disturbance, supposing you find that it arises.

408. Let me take an analogy. Suppose our wireless system of telegraphs were connected with instruments worked by separate organisations, would you consider that that would be as good a service as if the system was worked, as

it is now, by one central body?—Perhaps I might point out that in the international service that is exactly the case: the instruments at each end are worked by the two administrations.

409. The organisation of each country is worked by one central body. You do not have two kinds of instruments attached to the radio-telegraph provided by each country. You sent a telegram, say, from here to Russia; it would obviously have to be carried by some other organisation after it left our shores; but my point is whether you would consider it as good a service if you had different kinds of instruments worked by different services—as our present service is now—under one general organisation, or one sole kind of instrument?—As a matter of fact there are cases in which the instruments at the two ends of the wire are different.

410. In the United Kingdom?—Yes.

411. Would you mention a case?—I may mention the case in which type-printing receivers are used for messages sent by the Wheatstone instrument. The instruments there are not identical, but they are adapted to work with each other; and so long as the different instruments at each end are adapted to work with each other, I see no reason why a service in order to be efficient should necessarily have the same instrument at each end. If the instruments are not adapted to work with each other you will undoubtedly have an inefficient service.

412. From the point of view of imperial defence do you consider that all the services and instruments which would be admitted to intercommunicate with our coasts would be capable of adopting the prescribed standard wave length to which the regulation forces us?—The regulation does not require a *single* specified wave length. There are two wave lengths, either of which may be used by stations for the general public service; and any other wave length under 600 metres may be used by stations which are open to the public service, but which are not open to the general public service. Any of those wave lengths can undoubtedly be used by any of the systems that are generally in use at present.

413. How would the transmitting service notify the duration of its wave length?—Each station gives notice through the International Bureau, and the wave length used by each station is published in the general list of stations. There is a station, we will say, at The Lizard, and The Lizard would appear in the list of international stations, and opposite to it would be the wave length used at The Lizard. Any ship wishing to communicate with The Lizard would know that it had to use that wave length.

414. If a service desired to change its wave length would it have to get permission to do it from Berne?—No; a station licensed by the British Government would have to obtain the assent of the licensing authority for any change of wave length. Such change of wave length would naturally be notified to Berne and included as a correction, and circulated as a correction in the international list; but on permission

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permission from Berne would be necessary for the purpose.

415. What period of time would elapse between our licence being given here and the notification of it to the Berne Convention—the International Bureau?—The notification would no doubt be given simultaneously with the authorisation of the new wave length.

416. And that, *ipso facto*, would permit of the new wave length being adopted?—That would at once be communicated to the other powers. I think that under the Regulations attached to the Telegraph Convention, which are applied, so far as they are applicable, to wireless telegraphy, an interval of 15 days has to be allowed to elapse in order that the notification may reach the parties concerned. May I make a correction? The provision I was thinking of applies to modifications of “rate”—the 15 days’ interval. Any corrections that are made in the International list of stations are circulated every two months, and come into force at once; so that any change in the particulars published with regard to any station would be notified in the next “two-monthly” circulation, and would come into force at once.

417. You do not wish to make any alteration in your evidence with regard to the time required for altering the wave length, do you?—I wish to make this correction, that the interval of 15 days is not applicable to this case. It has application only to the alterations of rate.

418. Before it comes into force?—Yes.

419. I understood you to say that unanimity is necessary in order to enable any of the adhering countries to make any alterations or improvements?—In strict theory—yes; in practice—following the precedents of the proceedings at telegraph conferences in matters which are not regarded as of vital importance—the minority would as a rule accept the opinion of the majority, and it would be in the discretion of each Power to determine whether it would do so or not.

420. So that if any comparatively unimportant nation chose to stop any improvement being effected, what would be the position of this country under the Convention?—The position would be, in the first place, that an unimportant country finds it as a matter of practice very difficult at an International Conference to insist on an objection which is not shared by any important countries; and supposing that any unimportant country was for any reason to try and insist upon its strict legal rights, the other countries would evidently have the resource of concluding a new Convention, from which the objecting country would be omitted.

421. Were any views expressed at the Conference as to any possible confusion and interference and possible interception of messages arising from enforced communication between ships at sea?—Between one ship and another?

422. Between one ship and another?—Opinions on that point were expressed by the delegate for Montenegro, who, I may mention, is also the managing director of the Marconi Companies. Those remarks will be found at p. 82 and following pages.

Sir Edward Sassoon—continued.

423. Was nothing said by the British Delegation in regard to any possible confusion?—The British Delegation objected to the proposal to render intercommunication between ships at sea obligatory. The views of the British Delegation on that point will be found in the observations made by Captain Bethell at page 85 of the translation. Captain Bethell based his objections partly on the ground that this question had not been discussed at the preliminary Conference and had not been included in the draft Convention, and that therefore to raise it now would be to introduce a fresh discussion, for which the British Delegation was not prepared; and he pointed out that at the present moment it is not compulsory for a vessel to receive a signal sent from another ship or to reply to it, and that it was undesirable to impose on shipowners and captains a serious and heavy responsibility which did not apply in the case of ordinary signals. He also thought there would be difficulties as regards keeping a continual watch on the instruments, and difficulties as regards accounting, and that to impose this obligation might create a serious obstacle to the use of radiotelegraphy on board ships. Those are the objections that were stated. The particular question of confusion was not one of the points which were mentioned.

424. The British Delegation spoke and voted against it, I understand?—Yes, and also insisted that if this obligation was accepted by any countries it should not form part of the Convention itself, but that it should form a separate agreement—a separate undertaking—to be signed only by those countries which wished to enter into the obligation. That view was accepted, and the clause is included as an “Additional Undertaking.”

425. Did the British Delegates make any reservation as regards possible prejudice to patent rights in this country?—Yes, the British Delegation made a proposal on that point—not as regards patent rights in this country specially, but as regards patent rights generally.

426. If you tell us the effect of that, that will be enough and save time?—The effect of it was a proposal that if in any country it was shown that prejudice was caused to patent rights of any kind by the obligations of the Convention, such steps as were deemed necessary by the Government of that country, should be taken to prevent the occurrence of such injury. The reasons which were given for that proposal were in these words: “Certain private companies which work their own patented inventions are of opinion that in accepting communication with other systems which they believe to be infringements of their patents, they would forfeit their rights seeing that they would to some extent admit the legality of the other systems by the fact of communicating with apparatus of different systems. If it be true that the interests of inventors may be injured in this manner it is desirable to provide a remedy.” That proposal was discussed; several delegates of other countries expressed the opinion that no such injury would arise, and that in any case it was not necessary to provide for the case by international agreement, and the Conference declined to accept the clause in those terms.

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Sir Edward Sassoon—continued.

427. It was rejected by a very large majority, was it?—Yes, it was put to the vote and rejected by 23 votes against 5.

Mr. Adkins.

428. On what page is that to be found?—The proposal is at page 62 of the translation of the Procès-Verbaux, and the vote at page 64.

Sir Edward Sassoon.

429. Now I would like to ask you what steps the Post Office would take here to safeguard any rights belonging to private companies which it might consider prejudiced?—Perhaps I ought to guard myself in the first place by saying that I am not of opinion that any such prejudice would arise. If such prejudice arose there would be two methods in which a remedy might be provided—either by legislation, laying down that the fact of inter-communication should not prejudice any remedy that the patentees might otherwise have, or by compensation.

430. Exactly. Now did the delegates propose any extra rate being charged for messages transmitted from ships employing a different apparatus to that employed at the coast station. To save time I think I can help you by saying that it was rejected?—The proposal was rejected. I was looking for it in order to be accurate as to the exact terms, but I think I can speak from memory with sufficient accuracy. The proposal was to the effect that any country should be at liberty to authorise its shore stations to charge an additional rate, the additional rate not exceeding the ordinary rate, in cases where a shore station communicated with a ship of another system. That proposal was intended to enable the British Government in carrying out the obligation imposed by the first condition attached to Article 10 of the Post Office-Marconi Agreement to place the additional charge on the sender of the telegram. There was strong opposition to that proposal, and it was not accepted by the Conference. The British delegation did not insist upon it as a *sine quâ non*, because it is open to the Government to satisfy that condition by paying the additional rate themselves; and, as the amount will not in any case be very large, it was really a question of convenience rather than a question of serious principle.

431. So that under the operation of Article 10 of the Post Office Agreement any extra charge of that description will be thrown upon the taxpayer of this country?—Yes.

432. You do not contemplate that it will be very large?—No; because the period is strictly limited; it would only, of course, apply in the case of stations which are not exempted from intercommunication, and it would only apply in that instance in the case of such traffic as was exchanged with ships of other systems. On the best estimate we can make, the amount would be very moderate, and not such as to cause any serious charge on the Exchequer.

433. I suppose this country had no right to get any special proposal of this description passed by threatening to retire from the Convention?—Undoubtedly if the Government had regarded any of these proposals as a vital

Sir Edward Sassoon—continued.

matter it would have been perfectly open to them to decline to join the Convention unless their proposals were accepted. That was in fact their position as regards the right to exempt stations. We stated clearly from the beginning of the proceedings that the power of exemption was a *sine quâ non* for our adherence to the Convention.

434. Then how do you account for the fact that important countries, like the United States for example, should have declined to avail themselves of the principle of exemption?—The countries which declined to avail themselves of the principle of exemption were the countries who held so strongly the opinion that inter-communication was the right system, that they did not wish to appear to whittle it down, even by leaving it open to avail themselves of the power to exempt stations. The fact that they did not wish to reserve this power is an indication of the extremely strong opinion that was held by most countries of the civilised world on the subject.

435. And, as I understand, your present opinion is that Great Britain, with all her vast interests beyond the seas, would be able to exercise an influence apart from her voting element on the Convention?—I think that past experience shows that in all International Conferences Great Britain, as to her opinion and views, has the weight which attaches to her international position.

436. Do you attach much importance to the functions of the International Bureau in regard specially to this Convention?—I think they are useful but harmless.

437. You do not anticipate any vexatious or frivolous delays arising from its operations?—Not the least.

Mr. Gwynn.

438. With regard to the position of the Marconi Company, suppose this Convention to be ratified and accepted by Great Britain, what will then be the position of the stations at present licensed to the Marconi Company if they persist in their refusal to accept intercommunication?—It would then be for the Government to decide in the case of each particular station whether that station should be exempted or should be required to intercommunicate. If the station was exempted then presumably no further question would arise. If the station was required to intercommunicate I understand the honourable Member to ask what would be the result supposing the company refused to comply with the obligation?

439. Yes?—The result would be that they would not have complied with the conditions of their licence and the licence would be forfeit, and they would be compelled to close the station.

440. In fact then the Government has power to force them either to accept intercommunication or to cease to exist?—Certainly, and the company by the agreement of 1904 voluntarily and in return for the advantages which they received under that agreement agreed to accept the Convention when required to do so by the Government.

441. I

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441. I think you introduced the word "monopoly" in regard to the Marconi Company?—Yes.

442. How far at the present time would you say that the Marconi Company possess a monopoly *de facto*?—*De facto* a considerable part of the maritime communication by wireless telegraphy, so far as regards ships sailing through the Channel, is in the hands of the Marconi Company, because up to the present time the Government has not licensed stations on other systems on the south coast of England or Ireland. As regards other parts of the world, on the coasts of America—both the Atlantic and the Pacific coast—in the West Indies, and so forth, there certainly is nothing approaching a Marconi monopoly; in fact, so far as shore stations are concerned the only parts of the world in which Marconi stations have anything approaching a monopoly are Great Britain, Newfoundland, Canada, and Italy.

443. You said, I think, that there were more stations of other systems—taking other systems collectively—in the world than there are of Marconi stations?—Yes.

444. Now, are these "public" stations in the same sense that the Marconi stations are, that is, stations carrying on a public telegraph service from ship to shore?—In the list of stations given a distinction is drawn between the stations which are open for commercial work and those which are not open for commercial work. I believe that in most, if not all, cases the stations contained in the list on page 189 and the following pages are open for communication with ships at sea. Some of those stations are intended primarily for shore to shore communication, but I believe that in most, if not in all, of those cases they are also open to communication with ships at sea. There may be a few of the stations which are only open for communication from shore to shore. I am not prepared to say, for instance, whether the Turkish stations which exist for communication between the coast of Asia Minor and the coast of Africa are open for communication with ships.

445. But I gather you think that it would not be fair to say that the bulk of the public telegraph service between ship and shore, taking the whole of the wireless telegraph systems of the world, is done by the Marconi Company?—So far as concerns the waters round Great Britain that would certainly be true.

446. That they hold the bulk?—That they hold the bulk—yes.

447. I want to get a reply to a question as bearing on your answer, that there was at present an actual numerical superiority of stations other than Marconi. You did say that, did not you?—Yes.

448. How much of the public business (which is the natural subject of this Convention) is being done by the Marconi Company?—I think a fair indication of that is given by the notes at the end of those lists giving the number of ships equipped: Between 80 and 90 ships of the Mercantile Marine of various nationalities are equipped with the Marconi apparatus, and between 60 and 70 ships of the Mercantile Marine of various nationalities are equipped with

Mr. Gwynn—continued.

non-Marconi apparatus. It is fair to say that of those ships the ones equipped with the Marconi apparatus are probably the larger and more important ships, so that undoubtedly at present the larger part of the communication with ships is in the hands of the Marconi Company. But perhaps I might add once more that that situation arises partly, no doubt, from the fact that the Marconi Company were first in the field, but also from the fact that hitherto, while the future arrangements with regard to wireless telegraphy were in suspense, the British Government has held its hand as regards licensing other stations on the South Coast.

449. That is to say that whatever monopoly exists, exists partly by virtue of the fact that the Marconi Company were first in the field—that they were the first people to apply this invention commercially?—Yes, that is so.

450. And organised the service?—That is so, undoubtedly.

451. But you say also that in part the monopoly is due to a preference that has been given by the British Government in the matter of issuing licences?—Well, I would hardly put it as "a preference." When the power to license was created by the Act of 1904, Marconi stations were the only stations in existence, and therefore the Government was practically bound to license those stations. It has held its hand as regards licensing other stations, pending the settlement of the question of adherence to the Convention and so forth, and that has in practice created a preference in favour of the Marconi Company.

452. It has stereotyped the state of things existing at that time?—Yes, quite so.

453. It has refused to grant extra licences to the Marconi system, while it has been refusing to grant licences to other systems?—Yes.

454. So that practically no advantage has been given to the Marconi Company by the Government beyond the preference of the sort you have indicated?—That effect has no doubt been created—a preference in favour of the Marconi Company.

455. But not otherwise than the "preference" due to the fact that it was first in the field?—Due to the fact that they were the first in the field, and the only people in the field, at the time when the licence was created; and, therefore, pending the settlement of this question, it was almost inevitable that the then existing state of things should be temporarily stereotyped.

456. The preference resulted negatively?—It resulted negatively; it resulted not from a desire to give a "preference," but from a desire not to tie the hands of the Government before the questions of general policy were settled.

457. It would be fair to say, would it not, that to a certain extent the Act of 1904 and the Government's consequent refusal to grant new licences impeded the Marconi Company as well as advanced them—that it prevented the natural development of the Marconi organisation?—No. I do not think so. I am not aware that they have applied for additional stations for ship and shore work; they may possibly have applied for one, but at any rate I do not think they have required

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required other stations than those which they had got—those which they were entitled to under the agreement for the development of their system of ship and shore communication.

458. The principal rival to the Marconi system at present is that of the German company, or group of companies, on the Telefunken system, is it not?—Not in this country.

459. I am speaking from an international point of view?—That is one of their rivals; yes, I think I might say the “principal rival.”

460. What is the status of these companies? Do they exist as Marconi companies, as an organisation for providing means of communication, or are they manufacturers of telegraphic apparatus?—The Telefunken Company has hitherto manufactured apparatus for sale to Governments and other organisations, but the other companies I believe are providing, or are anxious to provide, stations for communication with ships at sea.

461. You say, “are providing or are anxious to provide.” Is there any other organisation practically in the field in the world as competing with the Marconi Company?—Yes; for instance, the Amalgamated Radiotelegraphic Company has stations now which are open to service with ships at sea, and at which they desire to develop a service with ships at sea.

462. Have you any idea of the numerical proportion between their stations and those of the Marconi Company?—It is very small because it is only recently that licences have been given to any of their stations, and for only a few of those stations.

463. Do you mean given by any foreign Government or by the British Government?—Given by the British Government.

464. Would it be a fair thing to say that by inter-communication you authorise any man—or any ship, let us say—which buys an instrument from the Telefunken Company to utilise the whole existing organisations of the Marconi telegraphic service?—Yes, so far as concerns non-exempted stations, and on payment of their rates.

465. On payment of their rates?—Yes.

466. That is a matter about which I am not quite clear. In the case of messages originating, say, with a ship using non-Marconi apparatus, the message being transmitted through Marconi stations, the charge for the telegram is divided, the Marconi organisation receives its fair share of the toll for transmission?—Yes, certainly. The charge on the telegram is made up of the ship rate, of the shore station rate, and of the ordinary rate for transmission over the land lines. The shore station gets the rate belonging to it, whatever the origin of the message; and in the case of stations in the United Kingdom during the period fixed by the Post Office—Marconi Agreement the shore station would receive a double rate if the ship was using apparatus other than Marconi apparatus.

467. They would receive a special payment in virtue of their agreement?—Yes; but in all cases the station would receive the rate belonging to the shore station.

468. Then in your opinion there would be no commercial injustice done to the Marconi Com-

Mr. Gwynn—continued.

pany by the adoption of this Convention?—No, I think absolutely none, because in return for advantages given to them the Company agreed to accept it.

469. The whole of this set of circumstances is provided for in the Agreement of 1904 or subsequent to 1904 is it not?—Yes.

470. I have been questioning you so far from the point of view of the Marconi system. From the purely British point of view of inter-communication do you think it would be advantageous to British industry generally?—Yes, I think it would, because in perfecting and encouraging free competition between the different systems it would tend to the advantage specially of the shipping interest, which would suffer from being in the hands of a single organisation, and indirectly ultimately to the advantage of the British manufacturing industry, because it would tend to promote the use of wireless telegraphy, and therefore the manufacture of wireless telegraph apparatus.

471. And from the standard of Imperial defence do you think it would be an advantage to have a great number of stations controlled by a single company and that a British company?—That is a point on which the Admiralty representative will be more competent to speak than I am; but I think the control of those stations in time of peace is a matter of relatively minor importance, because in time of emergency or war the licences confer full powers of occupying and working the stations—that is, of either closing them or working them in any manner which might be necessary for naval requirements. Perhaps I might add this, that an intercommunicating system would give the operators a much wider and more varied experience of communication under all sorts of conditions than a non-inter-communicating system, which corresponds only with apparatus of the same kind and with operators of precisely the same training. Therefore I believe that operators trained under an inter-communicating system would be more efficient in meeting the varying circumstances which might arise in time of war or emergency than operators trained under another system.

472. At the present time is it not a fact that the Marconi Company is carrying on what is virtually an international service with vessels of many nationalities?—Yes, of several nationalities, certainly.

473. Of several nationalities; and do you think that in the event of refusal to ratify it would be possible for the Company, merely as a Company, to develop an international service for itself?—In the event of the Government refusing to ratify this Convention?

474. Yes?—If the Government refused to ratify this Convention, and if thereby the Marconi Company were encouraged to persevere in a policy of non-intercommunication my anticipation would be that the ultimate result would be very seriously detrimental, if not destructive, to the business of the Marconi Company. In that connection perhaps I may mention that I think I gave in my evidence in chief that certain

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Marconi ships (I believe fitted by the Belgian Marconi Company) are at present intercommunicating with a Telefunken station in Holland.

Mr. Arthur Lee.

475. Is that Scheveningen?—Yes, Scheveningen.

Mr. Gwynn.

476. If I may, I will ask you just one more question: In regard to the attitude taken up by Italy, if the Marconi Company does not come to an understanding with Italy over the difference that exists between the Government and the Company, is it understood that Italy will not be a party to the Convention?—Yes, as regards some important points, the Italian agreements are not, I think, with the Marconi Company, but with Mr. Marconi himself—a distinction which is not without importance—and if Mr. Marconi should decide not to meet the views of the Italian Government as to a modification of those agreements, Italy would be unable, as stated in the declaration made in the Final Protocol, to ratify the Convention until the expiry of those agreements.

477. So that legally the case of Italy is not analogous to the case of Great Britain?—No.

Mr. Sydney Buxton.

478. In reply to Mr. Lee you said that the Delegates were instructed to support the principle of intercommunication if possible, and I gather from what you said that that meant subject to certain specific conditions laid down by the Government in their instructions to the Delegates which unless adopted by the Convention would preclude them from signing it?—That is so.

479. And some of those at all events—possibly all—were, as I understand, conditions which the Admiralty considered essential for their proper security if the Convention went through?—Yes.

480. As regards the details of them I had better perhaps ask questions of one of the Admiralty delegates rather than of yourself?—Yes.

481. I understand from your evidence-in-chief, and also from what you said to one honourable Member, that one of the advantages, to your mind, of the Convention will be that it will diminish the likelihood and the chances of confusion between station and station?—Yes.

482. Would that be due to the various clauses to which you have called attention, namely, the licensing of the ship and the operator under certain conditions, for one thing?—That is one of the most important clauses with regard to the avoidance of confusion.

483. And that each ship should communicate as far as possible with the nearest station?—Yes, that also is an important point.

484. And the further one that each ship must use the lowest possible power compatible with proper communication?—Yes, that is a point of considerable importance.

485. And most important from the fact that the coast station has practically to a large extent to regulate the service?—Yes.

Mr. Sydney Buxton—continued.

486. Is that the case at present under certain conditions; for instance, would the Marconi station on the shore regulate more or less the communication with the various ships?—I believe that the present system of the Marconi Company is that the shore station decides the order in which ships should communicate supposing that several ships wish to communicate at once. That is the same principle as that which is adopted in the clause to which the right honourable Member refers.

487. Therefore, from the point of view of confusion, in your opinion it would be an advantage to the community, to those using wireless telegraphy, certainly, that the Convention should be adopted?—Yes, undoubtedly.

488. I understood you to say further—near the end of your evidence—that you thought the ratification of the Convention would be rather to Great Britain's general advantage, and would probably be an encouragement to the existence of the present British stations and the creation of fresh ones as against foreign ones?—Yes, certainly.

489. That, of course, from the commercial point of view and in time of war would be an advantage to us?—That would be a great advantage both from the commercial point of view, and in time of emergency or war. My idea is that from a naval or strategical point of view it is a matter of absolute indifference what system is carried by foreign ships, because in any case those ships would be entirely outside the control of the British Government in time of war, and therefore it is of no importance what system they carry.

490. An honourable Member asked you just now about the Marconi Companies. He asked you whether the fact that the Post Office has largely held its hand in issuing new licences to various companies would have prejudiced the position of the Marconi Company. I understand you to say that it probably would not?—So far from prejudicing their position, I think it has undoubtedly enabled them to maintain such preponderance as they at present have in maritime traffic.

491. Because they have had certain licences granted them under the Act and agreement, while other companies for the time being have been refused. Is that what you mean?—Yes, that is so.

492. You said something with reference to Lloyd's; is it a fact that at Lloyd's stations throughout the world (they have a good many, as you have shown us in this list) they are at present absolutely prohibited from intercommunication with anything except the Marconi ships?—Yes, that is so, except of course in cases of distress.

493. So far, therefore, as they are a sort of quasi public commercial body their advantage to the community is largely hampered by this want of intercommunication?—Yes. There are many places abroad in British possessions where Lloyd's are the obvious persons to put up a station, where Lloyd's would have a sufficient inducement to put up a station and nobody else would. A number of such cases have been blocked because Lloyd's are unable to put up a station which will

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communicate with other systems besides the Marconi system.

494. A ship equipped with the Marconi system is prohibited also from communicating with anything but Marconi stations?—Yes.

495. If intercommunication were adopted generally it would mean that any ships equipped with Marconi apparatus only would be put to a disadvantage with their foreign rivals?—Undoubtedly; that is, in case the Marconi system was allowed to go on refusing intercommunication with all other systems, those ships would be unable to communicate in any part of the world where the stations happened to be on some other system than the Marconi system.

496. Turning to the agreement to which an honourable Member referred just now, I understand you to say that it was a purely voluntary agreement on the part of the Marconi Company with the Post Office in 1904?—Yes.

497. And under that agreement they obtained considerable advantages?—Very considerable advantages.

498. Confirmation of licences and security of licences and so on?—Yes, and also facilities for the collection and delivery of telegraphic traffic. It was practically impossible for the Company to have any considerable traffic with ships at sea without having the advantage of the whole of the Postal Telegraph system for the transmission and delivery of their telegrams. One of the great advantages they receive under that agreement is that the Post Office undertakes to give them those facilities—that is to say, to receive telegrams for transmission to Marconi stations and to transmit and deliver telegrams received at Marconi stations.

499. Is it a fair thing to say that they were bound to agree to Article 10, to which considerable reference has been made?—Yes, certainly.

500. And that article was carefully considered by the Admiralty and the Post Office, I think?—Yes.

501. And I understand from what you have said—of course we shall hear the witness from the Marconi Company, no doubt—but I understand that their position, as you explained it, is that “without prejudice to their patent rights” covers the whole of the clause and might prevent the Government from insisting on their carrying out their obligation under that section of the agreement?—The position which they have stated in letters addressed to various Government Departments is that they regard those words as constituting a condition qualifying their whole undertaking to accept the provisions of the Convention.

502. Is not the first part of the clause up to the word “effect” on line 7 quite clear? It says this: “In the event of His Majesty’s Government adhering for the United Kingdom to a Convention”—and so on—“the Companies undertake, if required by the Government, to observe in the United Kingdom and on British ships the provisions (except Article VI.) of the

Mr. Sydney Buxton—continued.

Convention and of any detailed regulations made thereunder for carrying these provisions into effect.” That part, you contend, do you not, would be complete in itself?—That is complete in itself, and is clearly not qualified or affected in any way by the words “without prejudice to their patent rights,” inserted in a subsequent part of the clause. Therefore the undertaking to accept the Convention generally is absolutely free from any effect of those words, whatever that effect may be.

503. Then it goes on to say, “and in particular and without prejudice to the generality of the foregoing undertaking”; then it deals with the question of “the obligation to interchange”?—Yes.

504. That was a specific point differentiated from the first part of the clause—is that your view?—That is so, but I think importance attaches to the words “without prejudice to the generality of the foregoing undertaking.”

505. Yes, I read those words?—Yes.

506. Your contention would also be, would it not, that if “without prejudice to their patent rights,” was one of the provisoes—it would be put as one of those which are specific provisoes governing the rest of the clause—is that so?—Yes, I think that is undoubtedly the case. The view which we take of those words is that, in the first place, as has just been pointed out, they only apply to the particular clause in which they are inserted, and that in the second place, their meaning is the ordinary meaning of the words “without prejudice.” When you make an offer to settle a case of dispute, if you say that the offer is made “without prejudice” to any legal remedy that you have, you do not mean that that offer is *conditional* on your legal remedy remaining intact. What you mean is that you do not wish that that offer should be quoted against you in any subsequent legal proceeding. All that those words mean is that they do not want their acceptance of intercommunication to be quoted against them in any subsequent legal proceedings as regards the patent; they wish to prevent its being quoted against them as indicating that they have deliberately waived their patent rights.

507. You mean the wish to save themselves from a possible apprehension that they would have forfeited their rights in the patents against other companies?—Yes, that they had intended by such agreement to waive their rights. May I also point out that in my opinion those words do not apply to the following clause relieving the Admiralty and Lloyd’s from that obligation not to intercommunicate.

508. And in any case so far as there is any contention in regard to these words it does not affect the strategic position generally under the Convention; it has nothing to do with that?—No.

509. You have been speaking several times of Colonial votes—Egypt has a vote as well, has it not?—Egypt will have a vote if it adheres to the Convention; at present Egypt has not signed the Convention.

F 2

510. Can

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Mr. H. BABINGTON SMITH, C.B., C.S.I.

[Continued.]

Chairman.

510. Can you say when the agreement between Italy and Mr. Marconi will come to an end if they cannot have it modified?—In 1917.

511. There is just one question I want to ask you in regard to the question of votes. Now in the case of a foreign country claiming a vote or votes for a colony, obviously so obscure or remote as not to justify such a claim, I do not quite gather from your replies to questions which have been put (I think chiefly by Mr. Lee) whether the Convention has power to prevent that country upholding the claim. Take Germany as an instance—some of the colonies of that country are very small remote colonies: Suppose Germany claimed a vote for one of those?—Under the Convention as it stands each such claim for a vote has to be decided by the Conference itself—that is to say, if a majority of the Conference decided that the claim was not to be admitted—that the colony in question was not to have a vote—then the colony would not have the vote.

512. That would be decided by a majority of the Conference, you say?—By a majority of the Conference.

Mr. Arthur Lee.

513. Do you think that right would ever be exercised?—I have no doubt it would. Similar questions have frequently arisen at the Postal Conferences, and the Conferences have always been very jealous of granting additional votes to colonies, especially to colonies that were not of the first importance. The various votes which have been assigned to British colonies have been assigned at successive Conferences by votes of the Conference. The vote for New Zealand, for instance, was assigned at the last Conference at Rome. A vote is not necessarily assigned as a matter of course.

Chairman.

514. Have votes been assigned to other countries for their respective colonies in the same way as ours have?—In the Postal Union the colonial votes are held by other countries in the number which I have enumerated in my evidence-in-chief: France has three colonial votes, Germany has two.

515. Yes, they have been assigned to numbers but not to places?—They are assigned to actual places or groups. In many cases they are assigned to groups of colonies.

516. You replied also to some questions which were put to you with regard to instruments receiving messages from a different system. Now, in adapting different instruments to the working of each other, would it in any way affect in-

Chairman—continued.

juriously the instrument sending or receiving the messages from the same system; would it have any effect in that direction?—No, I think not.

517. Would it injuriously affect them in the matter of the alterations that would have to be made?—No, I think not.

518. One more general question I should like your opinion upon: Assuming we did not ratify how far would you consider the Marconi Company would have power to come into arrangements with other Powers in the Convention?—I am not quite sure that I understand the bearing of the question.

519. Assuming that they undertook to modify their present policy of non-intercommunication, what would happen?—That is to say, if they were prepared to accept intercommunication, would it be possible for them to enter into agreements with other Powers with regard to such matters as the collection of charges, the rates, and so forth?

520. Yes. That is practically the question I want you to answer?—It is a little difficult to say, but I should anticipate that other Powers would hesitate to enter into agreements on such a matter with a private company, and would certainly prefer to enter into an agreement with the Government.

521. It is not so much a question of preferring as from the point of view of the power of one company to be able to induce other companies connected with other countries to come into agreement with their terms that I want to get your view?—It would not be sufficient for the purpose that they should have agreement only with other companies because for an intercommunication service it is clearly necessary that the use of the Government systems of telegraphy generally should be available. And also in most other countries the coast stations are Government stations; therefore I think that for creating any satisfactory international service an agreement between Governments is indispensable, and I should very much doubt whether Governments would consent to enter into an agreement on such matters with a private company.

522. You do not consider that any private company, however powerful, would have power to force other countries to enter into such an agreement?—It would certainly have no power to force other countries to do so.

523. Now, in a final question, I will just ask you for a confirmation of something you have already said: May I take it that you consider the modifications in the Convention as now determined fully meet the Government objections to the Convention in its original form?—Yes.

Colonel F. J. DAVIES called in; and Examined.

Chairman.

524. You are a Colonel in His Majesty's Army, at present holding the appointment of Assistant

Chairman—continued.

Quartermaster-General in the Western Command?—That is so—yes.

525. Can

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Colonel F. J. DAVIES.

[Continued.]

Chairman—continued.

525. Can you tell the Committee what opportunities you have had of studying wireless telegraphy?—I served from January 1902 to November 1906 on the General Staff of the War Office in the Section which deals with all matters of policy connected with wireless telegraphy among other matters, and for the last two years I was in charge of that Section. I have also represented for the last two years the War Office on the Cable Landing Rights Committee, which has already been referred to, and I took part in the Departmental meetings in October 1904 and again in 1906, before the Conference, and I also attended the Conference as one of the British delegates representing the War Office. Perhaps Sir, I may mention that the proof of my evidence has been submitted to my superiors at the War Office, and it represents the views of the Department.

526. It represents the view of the War Office?—Yes, I have taken the precaution of ascertaining that it does represent the views of the War Office.

527. Now did you attend the 1904 Conference as a British delegate?—Yes, I did, Sir.

528. You were nominated to represent the War Office on that occasion?—I was.

529. Did you attend the Inter-Departmental meetings on the subject which were being held at that time?—Yes, all of them, or practically all of them.

530. And you attended the Berlin Conference of 1906?—Yes.

531. And all Inter-Departmental meetings in connection with that Conference also?—Yes, I think I was absent on one occasion only, so that practically I attended all of them.

532. Can you tell the Committee to what extent the War Office is interested in the Convention?—From a purely Departmental point of view the War Office is not much affected by the Convention. The reasons for that are that with the exception of Articles 8 and 9 (which have already been explained by Mr. Babington Smith) the Convention does not apply to military stations. Those Articles (I do not think I need go into them—Mr. Babington Smith has dealt with them in detail) do not in the opinion of the War Office impose any onerous obligations, and further the actual control of wireless communications has now by consent been taken over by the Admiralty.

533. From what point of view then has the War Office considered the question?—Although we are not actually interested as a department, no question which affects the means of communication throughout the Empire is outside the purview of the Department, we, of course, are interested in any matter of that kind, and we have always been accustomed to work hand and glove with the Admiralty in all matters of that description—cables and wireless communications.

534. The Convention, therefore, has been considered by you and by the War office, not so much from a military point of view as from the point of view of Imperial strategy?—That is so—yes—quite so.

535. Can you further explain that?—Well, the War Office looked at the Convention from two main points of view. First, to put it in the form

Chairman—continued.

of a question—Does the Convention contain any provision which is objectionable from the point of view of Imperial strategy? Secondly (if that first question is answered in the negative—that it contains no objectionable provision), will any advantages accrue to the British Government—to the Empire—if the Convention is ratified?

536. Now, as regards the first of those propositions—whether the Convention contains any objectionable provisions—will you state your views?—The War Office has no hesitation in saying that the Convention contains no such objectionable provisions.

537. What are the reasons that have led to that conclusion on the part of the War Office?—I may mention one point though, that has already been stated. By Article 21, all naval and military installations are expressly excluded from the provisions of the Convention except of course as regards those two Articles 8 and 9. Then there is another point which we considered important from the point of view of war or strained relations. Articles 7 and 8 of the International Telegraph Convention are expressly stated to apply to wireless telegraphy. I think the Committee have before them those Articles. I may mention that they are the ones which give international sanction to a Government assuming complete control of wireless stations in time of war. It gives them complete control to close, or to partially close, or whatever they wish to do.

538. Which Article is that?—Articles 7 and 8 of the International Telegraph Convention of St. Petersburg. I think they are printed in one of the documents before the Committee.

539. Then as regards the licensing, what do you say?—The Government retains complete control. It does not affect the internal arrangements of the Government as to who they may licence or under what conditions: it does not affect the Wireless Telegraphy Act in that way. Then also, as has already been stated at length by Mr. Babington Smith, the Government, if it thinks fit, has power to exempt what stations it chooses from the Intercommunication Article—Article 3. The Committee will probably not want me to go into that at any length.

540. It has been gone into already exhaustively by Mr. Babington Smith?—Mr. Babington Smith has exhaustively explained that. Then another point is the shore-to-shore stations (which might be important to the War Office as in the case of interrupted cables in the time of war), which are entirely outside the Convention—they are not affected by it in any way except as regards Articles 8 and 9—that is, interference and signals of distress.

541. So that from these five points that you have mentioned the War Office find no objection at all to the Convention?—That is so. Of course, it is a negative conclusion they have come to, but I just mention those particular points that have led them to that opinion.

542. Now as regards the second proposition—the advantages of adhering to the Convention?—The War Office there are equally confident that not only would the Convention prove advantageous, but that disadvantages would result from not adhering to the Convention.

543. For

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Colonel F. J. DAVIES.

[Continued.]

Chairman—continued.

543. For what reasons?—It appears to the War Office that it is only by such an agreement among the Powers that the smooth working of wireless telegraphy between the ships and shore stations of different nations can be assured. Then also there is the point I have mentioned before—the Articles in the Telegraph Convention, seven and eight, relating to censorship, are of considerable value, because they prevent diplomatic difficulties arising with friendly Powers—which is a thing you are always very anxious to avoid when you are engaged in war. Everybody is bound to recognise your absolute right to deal with your telegrams as you think fit. That is an advantage. Also it appears to the War Office—though it is rather outside perhaps their scope—that the development of wireless telegraphy would be impeded if Great Britain stood outside the Convention. Mr. Babington Smith has given exhaustive evidence on that point. I do not know how much the Committee would like me to say about it.

544. Have you any more to say beyond what Mr. Babington Smith has said upon that point?—I would like to say this: The essential point from the Imperial point of view, particularly as regards war, is that as many of the shore stations of the world as possible should be on British territory, and therefore controlled by the British Government. Shortly—the reason being that the greater part of the traffic of the world would then be passing through those stations; and, although after a war had been in progress for some time, other nations might, to avoid censorship, make arrangements, still at the outbreak of the war we should be in a position to control, censor, or stop a proportionate amount of the wireless traffic. As regards who has made the instrument at a particular station, from the commercial point of view—the point of view of trade—that may be an advantage to a particular trade, but from an Imperial point of view in the case of war it is utterly unimportant who made it—absolutely unimportant—because whoever the foreign Government or the foreign ship may have actually bought their instrument from, that instrument will be absolutely under the control of the Government concerned; our Government could exercise no control over it whatever, whether it was ashore or afloat, so that it is of no advantage from that point of view that the instrument should have been made in England.

545. Can you say any more about that with regard to how far our object should be attained?—It seems to the War Office, I think, that our cable policy is a very good precedent to follow. We have endeavoured to adapt our cable policy to the needs of the world, and we should follow the same policy with regard to the wireless communication—that we should offer every inducement to the traffic to come, that we should not impose any condition which would tend to drive away traffic in any way whatever, that we should make it as easy as possible for every foreign ship to use our stations.

546. What would be the effect of our attempting to dictate to foreign Powers as to what instruments they should use?—We think it would drive traffic away, and it would certainly be an inducement to foreign countries to put up their own stations where they would not be harassed by any conditions, such as conditions as to what instrument they should use. The

Chairman—continued.

condition might be such that they would say that although they preferred to use our stations they were bound to put up other stations on foreign territory rather than submit to our conditions.

547. Now, if the British Government decides against the ratification of the Convention, do you consider it certain that the other powers will ratify in spite of it?—Yes, I am sure they will; I am quite sure they would.

Mr. Arthur Lee.

548. Do you think in that case that they would, as I think was suggested by Mr. Babington Smith, not accept the Convention in its present form, but would revise it so as to cut out our amendments?—Of course it is rather a prophecy to say anything about that, but when one goes through five weeks in discussing a Convention of that kind one gets to know pretty well what other delegates think from intercourse with them—I think they would be very angry after they had allowed us to have our way in a very great many cases. We shaped the Convention very much, and I think if we then went out of it they would say: Very well, now we will make a Convention which will not be so convenient to the British Government. I think there is a danger of that.

Chairman.

549. So that in your opinion, as far as that is concerned, the fact of our standing out would not in any way diminish the chance of the Convention being ratified?—I am quite sure everybody would ratify it except, possibly, Italy.

550. What would be the result now if the British Government stood out?—I have not very much to add to what Mr. Babington Smith said. I agree, and the Department agrees, with every word that he said. I may mention that in the first place I take it that British ships would have no right to demand that their messages should be accepted on foreign coasts, and being accepted, should be forwarded over the telegraph inland systems of those countries. As I have mentioned before, foreign Governments, in my opinion, would have an inducement to erect stations on their own territory. Then there is another important point—that is, that the British Government would have no voice whatever in the general regulation of wireless telegraphy if it stood out of the Convention; it would be out of court—it would have no *locus standi* in any case of interference; if we complained of interference the answer would be: Well, you stood outside the Convention. Then it would have no power to demand the enforcement of the service Regulations which were drafted with special regard to the interests of our own Navy, and I think I may certainly say that the British delegates had a preponderating share in the drafting of these Regulations; I do not think it is an exaggeration to say that they were largely our Regulations.

551. Now can you give the Committee any information as regards the system or systems in use in the Army?—I do not know how much information the Committee would like. I have notes here of all that has passed on the subject. Shall I give them?

552. Anything

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[Continued.]

Chairman—continued.

552. Anything that has a bearing upon the points we want to elicit from you we shall be glad to hear?—I have looked through all the files of the War Office on this point and I find that the Marconi system was first brought to the notice of the Royal Engineer Committee in 1897. Then, in 1899, the South African war broke out and some apparatus was sent out to South Africa for use there, and some other sets were intercepted at Cape Town on their way to the then Transvaal Government, which were taken possession of in her Majesty's name, and used. I have read the Report on the subject, and I find that when they were used at permanently fixed stations they were fairly successful. They were not very successful in the field, but I think that was not due to anything wrong with the system, which was then rather in its infancy, but to local reasons, climatic reasons, and probably to their not being very well understood. Then in 1901 I find that the War Office entered into communication with the Marconi Company respecting the hire of sets for experimental purposes. Then there were delays. The Company could not supply at first; negotiations were resumed in the following year, and sets were sent to Chatham. Then there were further delays; the sets were incomplete and they could not get on with the work. However, eventually experiments were carried out, lasting till August 1902, and the report was to the effect that the results were disappointing. Then early in 1903 the Company gave a demonstration over a distance of five miles, and they stated that they would endeavour to give a demonstration over 20 miles distance. Then there was a discussion as to the use of balloons, in March 1903; the Company stated that they could not supply sufficient portable apparatus unless balloons were used. A fortnight later they said they were not prepared to show that balloons could be used. Then, also in 1903, some sets of Marconi apparatus, which I believe were the property of the Admiralty, were used in Somaliland with some success.

553. Over what distance were messages carried there?—Thirty-two miles on one occasion; there were about six stations.

554. Has the War Office been in communication with the Company since 1903?—We received a communication from the Company in August 1905, in which they stated that the War Office had adopted a system which infringed the Company's patents. The War Office replied that they had not adopted any system at all. At the present moment there is before the War Office a tender or tenders from the Company for portable apparatus; no decision has been taken as to whether they should be accepted or not.

555. What was the cost?—I believe the cheapest was £500 with a range of 15½ miles, so I am told.

556. Has the War Office tried any other system?—Yes, there are a great many systems which have been tried. Inventors have written largely to the War Office, some dozen or more, but I will mention one of the principal ones—the Braun-Siemens, which is now "Telefunken." That system was investigated in 1902. The War Office had before them reports of the German Manœuvres which gave prospects of their being

Chairman—continued.

used up to a distance of a hundred kilometres with balloons. Some sets were purchased; the result was not very satisfactory; they were broken up and the parts were used. Then the same company sent two sets of pack apparatus—that is, apparatus borne by pack animals, of a lighter description than those carried on limbers. They were tried and were fairly efficient up to ten miles.

557. The Lodge-Muirhead system—have you tried that?—Yes, the Lodge-Muirhead system has been tried. The first trial I find mentioned of that was in 1903, when some apparatus was purchased and tried at Aldershot. The Lodge-Muirhead Company have a station at Elmer's End within range of Aldershot, and they have afforded very great assistance to the War Office in making experiments. These Lodge-Muirhead sets were used at manœuvres of the Second Army Corps in 1903. They only had two sets in use, and the results were not very conclusive. I see here I have made a note "very much the same as the result obtained with the First Army Corps by Marconi sets." In 1904 communication was established between Elmer's End (that is the Lodge-Muirhead's own station) and various other stations at distances of 41 miles, 32 miles, 50 miles, 35 miles, and as far as Clacton-on-Sea, 60 miles. That I think was at the large Army manœuvres. There were some experiments in Wales over mountains, which were not very satisfactory. Then in 1905 Lodge-Muirhead sets were used at manœuvres, the greatest distance 35 miles, and 10,000 words were sent during the manœuvres. In 1906 the apparatus was also used. I saw it myself in use there; the distances were not very great, but the manœuvres did not necessitate any great distances.

558. Which, in the opinion of the War Office, is considered the best system?—The War Office has an open mind on the question. At present I think they are going to purchase some Lodge-Muirhead sets and issue them to the newly-formed Wireless Telegraph Company of the Royal Engineers. They have given the most satisfactory results so far.

559. You mean of any of the systems they have tried?—Of any of the systems they have tried for their work.

560. Can you say anything more with regard to the actual use of wireless telegraphy in the Army to-day?—Of course, wireless telegraphy in the Army is used only for field stations—no permanent stations have been or will be erected—that is entirely the Admiralty's affair, and the principle on which the War Office wish to act is that they are not to be tied to any particular system in any way whatever; they will purchase and bring into the service whatever system at the moment appears to be most suited for war purposes—it may be one system now and another one in a year or two's time.

561. Not tied to any particular system?—No, not tied to any particular system. The Engineers are working very hard at it now, and possibly we may produce a system of our own.

562. Has wireless telegraphy been under discussion in the Army Council, do you know?—I am never present at the discussions of the Army Council.

563. You do not know, therefore, or you are not authorised to speak as to that?—No, I know

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[Continued.]

Chairman—continued.

know that my evidence was submitted and that it has official approval.

564. It has official approval, has it?—Oh, yes, it has official approval.

565. Have you got any anything more to say in your evidence-in-chief?—No, I think not.

Mr. Gwynn.

566. You were saying that the Lodge-Muirhead system had given the best result in these operations?—Yes, I am informed so.

567. Have the sets that have been tried been operated by the suppliers, or have the sappers who were operating them been assisted by representatives of the suppliers?—Both, I think. The sappers claim to be, and are, very efficient operators. The sets I saw in use at the manœuvres were operated by the sappers entirely.

568. Operated by the sappers without any assistance from a representative of the suppliers?—I think so. They have trained operators.

569. I just want to make a point clear. When Marconi sets or other sets have been used, you said the fact that the Lodge-Muirhead Company had an establishment near Aldershot enabled them to be of assistance. Had the Marconi people the same opportunities of working their own sets, sets which they supplied?—As far as I know they had. I believe they were given every opportunity they desired. I have not actually dealt with this question myself.

Mr. Arthur Lee.

570. Could you explain very shortly why it is that such a short range is only possible in the case of land installation; is it due to the lack of power?—I am afraid I am not an electrician; I am afraid I cannot tell you, but speaking purely as a layman I should imagine that you cannot carry about with you very powerful dynamos.

571. It is power more than interference, you think?—I think I had better not answer that question; I might be wrong.

572. You have stated that in the opinion of the War Office the Convention in its present form contains no objectionable provisions?—Yes.

572. I presume you mean no objectionable provisions from the War Office point of view?—No, I mean that they are of opinion that it contains no provisions which are objectionable from the point of view of the British Empire, not from the purely narrow departmental point of view.

Mr. Arthur Lee—continued.

574. I mean, are you authorised to express an opinion about it?—Yes, I am.

575. Not merely from the War Office point of view?—The War Office are in favour of ratification from the general point of view.

576. My point was rather this, that I should imagine that whether the Convention is ratified or not, it matters nothing to the War Office from a purely departmental point of view?—From a purely departmental point of view as regards the working of our installations.

577. That is what I mean?—But from the point of view of communication throughout the Empire it does.

578. Even if there was no Convention that would be so, would it?—It would not affect the Royal Engineers.

579. It would not affect the working of the wireless system in the field?—Oh, no, certainly not.

580. You are not able to say whether the War Office have submitted this matter to the consideration of the Defence Committee?—No, I have no knowledge of that; I do not see the minutes of the Defence Committee.

581. And you have certainly received no approval from the Defence Committee?—I have not seen one.

Mr. Sydney Buxton.

582. I understood you to say in your evidence-in-chief that one of the dangers of standing out from the Convention would be that it would induce other foreign countries to erect stations if ours were not available for intercommunication?—Yes.

583. Would you go so far as to say that it would actually compel them to do so?—In many instances I think they would do it rather than submit to such a condition, as that we should dictate to them as to where they bought their instruments.

584. I take it that the Marconi Company refuse to intercommunicate with any other system, do not they?—They had done so up to a recent date.

585. That is assuming the present basis?—Yes.

586. Except in the case of Holland?—Except in the case of Holland.

587. That would mean, would it not, that a ship that had not a Marconi installation would have no opportunity to communicate unless there was a foreign station erected within the same region?—Precisely.

Tuesday, 26th March, 1907.

MEMBERS PRESENT :

Mr. Adkins.
Mr. Sydney Buxton.
Sir John Dickson-Poynder.
Mr. Gwynn.
Sir William Holland.

Mr. Lambert.
Mr. Arthur Lee.
Mr. Macpherson.
Sir Gilbert Parker.
Sir Edward Sassoon.

Sir JOHN DICKSON-POYNDER IN THE CHAIR.

Colonel J. F. DANIELL, R.M.L.I., called; and Examined.

Chairman.

588. You are an Assistant Director of Naval Intelligence in the Naval Intelligence Department of the Admiralty, are you not?—Yes, Sir.

589. Will you tell the Committee what experience you have had as regards the question of wireless telegraphy?—My work includes questions relative to wireless telegraphy other than questions involving technical details. I have been in the Naval Intelligence Department since June, 1903, and I have dealt with wireless telegraphy since October, 1903. May I add that the evidence I am proposing to give now has been submitted to the Board of Admiralty and has received their approval; and also that Captain Bethell, who was the Senior Admiralty Delegate at the Berlin Conference would have been present to give evidence but that he left the Admiralty shortly after we came home from the Conference to take command of a battle-ship and he is in command of it now.

Mr. Lambert.

590. In the Mediterranean?—No, in the Channel.

Chairman.

591. Whatever evidence you give will coincide with the views held by Captain Bethell?—I think I may say that positively; we were quite at one about all these things.

592. In fact the views you are going to give the Committee to-day are the views of the Admiralty?—They are.

593. Did you attend the 1903 Conference?—No, Sir, I did not; I had only just come to the Admiralty and was not then responsible for wireless telegraphy at all.

594. Did you attend the Conference of 1906?—Yes.

595. As one of the Admiralty delegates?—Yes.

596. What was the attitude of the British Delegates at the preliminary Conference in 0.6—3.

Chairman—continued.

1903?—In 1903, Sir, there was no legislation in this country on the subject of wireless telegraphy and the British Delegates at Berlin were instructed to maintain an attitude of reserve on the subject brought before the Conference and especially on the point of inter-communication between different systems.

597. Prior to 1904 we have already had evidence to the effect that there was no Government control over wireless telegraphy?—No, there was not.

598. That is so, is it?—Yes.

599. I do not think you have got any further information to give the Committee beyond what was given by the Secretary of the Post Office on that point in regard to the control, have you?—No, except that the Admiralty had always recognised the importance of Government control being established, and in the absence of legislation they had endeavoured through Lloyds, who had made an agreement with the Marconi Company to use no other than the Marconi system, to obtain a limited control.

600. So that the Admiralty were anxious to establish some form of Government control?—Yes.

601. Now, has the Admiralty any agreement with the Marconi Company?—Yes. In 1903 the Admiralty concluded an agreement with the Marconi Company, which was an amplification of a former agreement dated 1901, and by the 1903 Agreement the Admiralty acquired the right to use for 11 years from the 1st April, 1903, the existing Marconi patents as well as any future patents to which the Company might become entitled. They also acquired the right to make use of one of the Company's long distance stations in Great Britain or Ireland for 20 minutes daily with priority over all other messages as well as the right of communication between His Majesty's ships and the Company's stations at any time at rates applicable to Government messages.

602. Did the Admiralty obtain any further agreement?—

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agreement?—There were further terms in this Agreement. It was further agreed that the Company would with reasonable dispatch after the same had been discovered from time to time communicate to the Admiralty any improvement in the apparatus intended to be used for wireless telegraphy or in the methods of signalling within their knowledge. The Admiralty agreed to pay to the Company 20,000*l.* down, 1,600*l.* royalty payable on 32 existing installations, and they further agreed to pay the Company the sum of 5,000*l.* annually during the continuation of the Agreement. The Admiralty also agreed, Sir, not to use Marconi apparatus in the United Kingdom for communication with other systems of wireless telegraphy except in time of emergency or war, or in the case of warships of all nations, or in the case of signals of distress. This was subject to the provision that if the Admiralty failed to observe this stipulation in consequence of legislation which either expressly or impliedly released them from the obligation, the Company should be entitled to compensation to be settled by arbitration in respect of the profit which they would have made had the Admiralty continued to observe such provisions during the whole term of the Agreement.

603. Are you acquainted with the terms of the Agreement of 1904 between the Postmaster-General and the Marconi Company?—Yes.

604. Will you give the particulars of that Agreement?—You do not wish me to give any other part of it, I suppose, that has been given before by Mr. Babington Smith?—No.

605. It contains a clause by which the Marconi Company undertake in the event of His Majesty's Government adhering for the United Kingdom to a convention based substantially on the stipulations contained in the Protocol of the Berlin Conference of 1903 to observe in the United Kingdom and on British ships the provisions of the Convention and to accept (without prejudice to their patent rights) the obligation to interchange messages with ships and shore stations in the United Kingdom equipped with other apparatus; and the Company undertook in such a case to relieve the Admiralty and Lloyds and all other persons with whom the Companies had contracted, from any obligation to refuse to interchange messages with ships or shore stations in the United Kingdom so equipped, or to make any compensation in respect of the interchange of such messages.

606. These agreements that you have mentioned are public documents now, are they not?—Yes, Sir; they have both been laid before the Houses of Parliament and are printed in the documents that have been laid before the Committee.

607. Now, under what circumstances was the Wireless Telegraphy Act of 1904 introduced?—The Wireless Telegraphy Act was the result of consultations between the Admiralty and the Post Office and other Departments, and the Admiralty entirely concurred in the provisions of the Act. In the House of Lords, I may say that the Bill was in charge of Lord Selborne, who was then First Lord of the Admiralty. The Act of 1904, as it was passed, made it

Chairman—continued.

illegal to establish any wireless telegraphy station in the United Kingdom or in the territorial waters without the consent of the Postmaster-General.

608. What was the attitude of the Admiralty upon the question of intercommunication between the different systems?—In the year 1904 there were very frequent consultations between the Admiralty and the General Post Office on the subject of wireless telegraphy generally in connection with the Postmaster-General's agreement and the Wireless Telegraphy Bill, and the attitude which was to be adopted by His Majesty's Government in view of the further International Conference on Wireless Telegraphy which was then proposed by the German Government. On the point of intercommunication between different systems—which would obviously be one of the main points in the Convention—the Admiralty agreed that the principle of intercommunication might be accepted on the understanding "that such regulations should be drawn up together with provision for their enforcement as would in the opinion of the Admiralty be adequate for the purpose of effective control over the general transmission of messages to or from stations on British territory, and of preventing interference and confusion." That was settled in February, 1904, and I have quoted the exact words, Sir, of the Admiralty decision which was come to between the Admiralty and the Board of Trade and the then Postmaster-General.

Mr. Arthur Lee.

609. Might I ask if that decision was embodied in a formal document?—I think for office use only; I do not think it has ever been published.

Chairman.

610. When His Majesty's Government responded to the invitation to attend the International Conference last year, can you tell the Committee what steps were taken by the Admiralty to decide on the attitude their delegates should adopt?—Yes. When the invitation to that Conference was accepted, it was arranged by the Departments concerned that the delegates who had been nominated by the respective Departments should meet together, and several meetings were held and the question was most exhaustively discussed between the delegates of the Post Office, the Admiralty and the War Office, and the *Projet de Convention* put forward by the German Government was examined in great detail, while the general aspect of the case from the point of view of naval interests and of requirements in war was fully considered.

Mr. Arthur Lee,

611. When was that?—In the course of the summer of 1906.

Chairman.

612. So that before the Conference took place at Berlin, full weight had been given to possible objections from a naval point of view to the principle of intercommunication?—Entirely, and the Admiralty delegates, when they went to the Conference,

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Conference, had full liberty to deal with the question on its own merits and to come to an unbiassed conclusion.

613. With regard to whether they would decide to sign the Convention or not?—Exactly, Sir.

Mr. Sydney Buxton.

614. You said that they had full liberty to arrive at an unbiassed judgment, but that was subject, was it not, to certain instructions which were made a *sine qua non* in regard to their signature?—Certainly.

615. I think you gave the wrong word?—I am sorry. I meant to say that they were not hampered at all; they had perfect liberty to see whether the *desiderata* of the Admiralty could be arrived at or whether they could not.

Mr. Arthur Lee.

616. Do I understand that the Admiralty delegates were put in a different position from other British Delegates, and, if so, were they able to prevent the delegation as a whole from giving a decision which they were not prepared to agree to?—May I put it in this way: may I say that special steps were taken to safeguard naval interests?

Chairman.

617. The point that the Committee rather desired to find out is to what extent you had power to put that into effect?—Precisely.

Mr. Lambert.

618. As I understand, the question never arose; you were in complete harmony with the whole of the delegates?—Entirely.

Mr. Gwynn.

619. Is it the case that the representatives of the directly naval and strategic interests had an absolute veto—that is to say, had they a further authority than the delegates who represented only the ordinary political and commercial interests?—I think I should be right in saying, Sir, that if the Admiralty Delegates had not been all fully convinced that the Admiralty *desiderata* were met by the Convention we should have had the right to refer for further instructions.

Mr. Arthur Lee.

620. Did you, as a matter of fact, refer for further instructions at any point?—We were in touch with the Home Government, of course, all the time, but on this particular point, no.

Chairman.

621. Because the objections that were in the original Convention were met by subsequent amendments, is that so?—The question did not arise, we were entirely at one.

Mr. Sydney Buxton.

622 The delegates were unanimous on every point, you mean?—Yes. This was a precaution 0.6.

Mr. Sydney Buxton—continued.

for which when the thing actually came to pass there was no necessity.

623. This is an important point and there may be a little confusion in the minds of some of the Committee. May I put it to you in this way:—There were Delegates from the War Office, from the Admiralty, and from the Post Office?—Yes.

624. They were acting under instructions from the Government in reference to certain matters—that is to say, they were not to sign the Convention unless certain alterations were made in the Draft. Is that so?—Precisely.

625. But in addition to that, if the Admiralty Delegates themselves had been dissatisfied with certain points, and they had thought that the Admiralty security was not fully complied with, apart from these *sine qua non* questions they would have had the power, which the other delegates had not, of referring the matter home or of refusing to sign?—Yes.

Sir Gilbert Parker.

625A. Independently of the other delegates do you mean?—Independently of the other delegates.

Chairman.

626. Or refer the matter home prior to their refusing to sign?—Yes.

Sir Gilbert Parker.

627. The other delegates, I take it, understood perfectly this condition?—Entirely.

Mr. Sydney Buxton.

628. Just to make it quite clear: That position never arose, I understand you to say, because from beginning to end the whole of the delegates from the three Departments were unanimous on every point?—I should like to make that quite clear, Sir, as clear as I possibly can.

Chairman.

629. All their objections were met?—Yes.

630. Owing to the amendments that were made in the Convention?—Yes, we had no differences of opinion.

631. Now we go back to the points contained in your statement. At the Conference how did the British Delegates deal with the question of intercommunication at the outset?—Well, the question of intercommunication was one of the very early Articles. Consequently, it came before the Conference on the first or second day; and on the motion of Great Britain this Article was accepted provisionally and as a basis for the work of the Conference, and we took great pains to make that clear—that we only accepted it provisionally, and as a basis for discussion; and the voting on the Article was adjourned till after the first reading both of the Convention and of the Regulations, because it was clear that at a later stage the British Delegates would be in a position to judge whether the *desiderata* laid down by the Admiralty were or were not possible of attainment.

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632. What

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632. What was the general opinion of the Conference on the subject of intercommunication between different systems?—It was practically unanimous in favour of the principle of intercommunication, and I should like to say, Sir, that the feeling was quite as strong on the part of France and the United States as it was on the part of Germany. While Great Britain could undoubtedly have stood outside the Convention altogether, there was absolutely no chance of securing the rejection of the Article as to intercommunication.

633. Would the abstention of Great Britain from the Convention have prevented a Convention from being reached?—No, it would not. Great Britain would stand practically alone if she had abstained, and it would not have prevented the signature of the Convention by other countries. Such an attitude on the part of Great Britain, while it would not have prevented the signature of the Convention by the others, would have prevented us from taking any part in the actual drafting of the Convention and the Regulations.

634. Were the British Delegates unanimous in their action during the Conference?—Throughout the whole of the debates on both the Convention and the Regulations the British Delegates were entirely unanimous; and the Admiralty Delegates, in concert with all their colleagues, kept constantly in view the possible effect of the Convention on naval interests and naval progress in wireless telegraphy.

635. Is there any point in the Convention or the Regulations in which you feel that naval interests are prejudiced?—I do not think there is a single point in either the Convention or the Regulations which is prejudicial to naval interests; and not only that—not only do I think there is no harm done to naval wireless telegraphy, but on the contrary there are many things in the Convention which are adapted to secure naval interests and to hinder any action on the part of stations open to general traffic, whether on board ship or on shore, which would prove a hindrance to naval signalling.

636. Later on in your evidence you give the Committee the several Articles which bear on this point, do you not?—Yes.

637. How are war arrangements affected by the Convention?—The war arrangements are not affected at all by the Convention. The powers of the Government in war are exactly as they were before; and whatever arrangements they may think fit to make can be made exactly as if there was no Convention at all. I ought, perhaps, to add to that, Sir, that there is one thing about war, and that is, as you were told in evidence before, that Articles 7 and 8 of the International Telegraph Convention are by this Wireless Convention specially made applicable to wireless telegraphy.

Sir Gilbert Parker.

638. There would be no mechanical suspension of the Convention in the case of war, would there?—Articles 7 and 8 of the St. Petersburg Convention, which I have referred to are

Sir Gilbert Parker—continued.

the Articles which deal with the way in which telegraphic communication would be dealt with in war, censorship, or suspension, or control.

639. I was not aware of those Articles?—They are printed, Sir. You will find them printed on page 35 of the book which has been laid before you.

Chairman.

640. Will you state briefly to the Committee now the provisions of those Articles which bear chiefly on naval interests, directly or indirectly?—There are only three articles in the Convention which bear directly on naval stations; but there are several Articles which bear indirectly on account of the effect which they will have on the working of other stations. The three Articles which deal directly with naval stations are Articles 21, 8 and 9.

641. What is "21"?—By Article 21, Sir, it is laid down specifically that, "The High Contracting Parties retain their full liberty concerning radiotelegraph installations not covered by Article 1, and in particular concerning naval and military installations, which are subject only to the obligations of Articles 8 and 9 of the present Convention."

642. Therefore 8 and 9 affect naval and military stations?—Those are the two Articles which do affect them.

643. How does No. 8 affect naval stations?—Article 8 lays down that the working of stations is to be organised as far as possible in such a manner as not to interfere with the working of other stations of the kind. This Article, of course, cuts both ways, because if other stations have to endeavour not to interfere with our naval stations, the latter are equally bound not to interfere with the former; but if radiotelegraphic communication is to make any progress at all, interference must somehow be prevented, and it has always been a leading principle with the Admiralty to preclude interference. The naval and military stations of other countries are, of course, equally bound by this principle of non-interference. In the opinion of the Admiralty it was very important to have this principle laid down by the Convention, and the words "as far as possible," which were designedly inserted, will prevent the Article being made use of as a basis for unreasonable complaints.

644. Do you apprehend any difficulty of definition arising from the words "as far as possible"?—No.

645. How does Article 9 affect naval stations?—By Article 9 radiotelegraphic stations, including naval stations, are bound to accept and answer signals of distress, an obligation which, from the point of view of humanity, we could hardly have objected to. Those two obligations that I have mentioned—namely, to avoid interference as far as possible, and to receive and answer signals of distress—are the sole and only obligations imposed by the Convention on naval stations.

646. Is there any provision in the Convention for allowing apparatus at an ordinary commercial station, the details of which can be kept secret?—Yes. Article 7 provides for that. By Article

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Article 7 it is allowed, in addition to the apparatus for public use, certain particulars of which will be published for general information, to make other arrangements for radiotelegraphic transmission of a special character, the particulars of which need not be published. This secures facilities for experimental work with due regard to secrecy should it, for example, be required to try any new system at one of the stations open for public traffic, but at the same time not to publish any details and to keep the second apparatus free from any obligation of public service.

647. Would the same provision refer to a naval station?—A naval station is not included, you see; it is outside the Convention; we can do anything we like in a naval station.

Mr. Arthur Lee.

648. Except interfere unnecessarily?—Yes, except interfere unnecessarily. We cannot interfere, but we take signals of distress.

Chairman.

649. Naval stations are quite outside?—Yes

650. What is meant by "exempted stations"?—An exempted station under the Convention is one which is exempted from the obligation to communicate with apparatus of another system.

651. What provision is made for such stations?—By Article II. of the Protocol Final the British Government, as well as certain other Governments who did not make a declaration that they did not wish to reserve for themselves this power, have the right to exempt certain coast stations, selected as they may wish, from the obligation of intercommunicating with other systems, provided that due provision is made for public correspondence by wireless telegraphy in the region served by the exempted stations.

652. What is the object of such stations?—It has many advantages, Sir. It will prevent the congestion of traffic in a busy locality—it will provide an experimental field for wireless telegraphic work, because exempted stations need communicate only with ships on their own system and worked by their own operators; and it will tend to secure, should it be found desirable, any existing wireless telegraphic organisation, that is, any established system of coast station ships, operators and apparatus under one management and one control; and lastly, Sir (which I think is one of the most important of all the reasons), it leaves us masters in our own house; we keep back certain stations at which we can do as we like.

653. What Regulations does the Convention contain concerning commercial wave lengths?—In Articles II. and III. of the Regulations the commercial wave lengths are fixed, and the limits which have been laid down are such that the whole range of possible wave lengths between 600 metres and 1,600 metres is reserved for naval use.

654. How does such Regulation affect naval wireless work?—I do not mean to say, Sir, that the Navy cannot use any wave length below 600

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or above 1,600; it is at liberty to use any wave length that it likes between the 600 metres and the 1,600; but commercial installations cannot use those wave lengths, so that commercial signalling would not interfere with naval signalling. I would like to make that quite plain, if I have not, that the Navy has got quite a free hand and can use anything it likes and that it needs between 600 and 1,600 metres, but nobody else is allowed to come in.

Mr. Gwynn.

655. May I ask you what restriction is to be enforced on the "commercial"?—The station will be licensed for certain wave lengths.

656. And prohibited absolutely from accepting messages which come on other wave lengths—commercial messages?—The commercial messages must be done on a certain wave length, yes.

657. And there is adequate machinery for control in that matter, you consider?—I consider so, yes.

Chairman.

658. Through the operation of the licence?—Through the operation of the licence.

Mr. Arthur Lee.

659. I should like to ask you this question. Did I understand you to say that commercial messages could not interfere with naval messages as a result of this precaution?—I said, Sir, that the object of this precaution was to try to avoid interference between commercial messages and naval messages.

660. I understood you to say that they could not interfere on account of the precautions which had been taken?—Well, if I said "could not," I did not mean to say that it was absolutely impossible, but I say that the design of this Regulation is to produce this result.

Mr. Sydney Buxton.

661. And at all events minimise the risk of interference?—Unquestionably, I think.

Chairman.

662. Does the Convention provide that details of naval stations should be communicated to the International Bureau?—No, there is no obligation to communicate any details whatever of a naval station. If any such particulars are communicated, the International Bureau will include them in the published list, but it lies entirely within the discretion of the administration concerned whether any such communication is made or not.

663. Are details of a naval station obliged to be communicated?—Certainly not.

664. Now, how does Article V. of the Regulations affect naval work?—Article V. of the Regulations prohibits superfluous signals and words at the coast stations and ship stations open for public correspondence, and the object of this Article is to avoid confusion and delay in securing the due dispatch of necessary work.

665. How does Article VI. affect naval stations, and also wireless work in general?—Article VI. is

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is an Article of great importance from a naval point of view, and it was proposed by the British Delegates; it is designed to provide for the proper efficiency of both apparatus and operators in the ship stations. There is no cause so productive of confusion and interference, and therefore of injury to naval signalling, as inferior apparatus and operators deficient in technical skill; so Article VI. was put in at the instance of the British Delegation with a view to obviate the difficulty in the interests both of naval signalling and of the proper dispatch of commercial work.

666. Article VII. What is the object of that?—Article VII., Sir, is also an important one from a naval point of view still, because it provides means for dealing with breaches of the Convention at ship stations—a very necessary provision to secure smooth working and to avoid interference.

667. What are the means provided—can you explain them?—By Article VII., “if an Administration has information of a breach of the Convention . . . it shall verify the facts and fix the responsibility. In the case of ship stations, if the responsibility falls on the telegraphist the Administration shall take the necessary steps and, if need be, withdraw his Certificate. If it is proved that the breach was due to the condition of the apparatus or to instructions given to the telegraphist, similar steps shall be taken with regard to the licence granted to the ship”; and then there is another clause, which goes on to say that if one ship keeps on making breaches of the Convention and redress cannot be obtained on proper representation, the country concerned is empowered to go so far as to authorise its coast stations to refuse communication with the ship in question.

668. Article XIX.—what is the object and effect of that?—By Article XIX. of the Regulations it is laid down that “as a general rule it is the ship station which calls the coast station, and that the call must only be made as a general rule when the distance of the ship from the coast station is less than 75 per cent. of the normal range of the latter.” The object of this Article is to prevent a multiplicity of calls for ships emanating from coast stations and taking their chance of being picked up or not by the ship for which they are intended, which would hinder other wireless work in the neighbourhood, and it is designed moreover to prevent ships from trying to call up coast stations at a great distance by increase of power, which also would have a tendency to cause interference.

669. Did this Article undergo any amendment at the Conference?—Article XIX. Yes; a great deal was added to it. At page 101, Sir, the Article is printed, showing in italics the alterations.

670. Were those alterations made on the proposal of the British Delegates?—They were mostly, at any rate, made on our proposal or in the sub-committee on signals.

671. Mostly?—Yes.

672. Article XXVIII.—how does that affect naval work?—Article XXVIII. lays down that all stations are bound to work with the minimum

Chairman—continued.

expenditure of energy necessary to get effective communication, and it is intended to prevent either naval signalling or commercial signalling being jammed by the use of excessive power.

672A. Article XXX.?—Article XXX. lays down that as a general principle the ship station is to transmit its messages to the nearest coast station. The object and advantage of this are clear; on the one hand it prevents a ship trying to force a signal through to a distant coast station to the detriment of general traffic; and, on the other hand, it ensures that traffic in the Channel, where the majority of commercial work is at present done, will pass through British coast stations, because they occupy the commanding points all the way up-Channel. Similarly, abroad, the nearest coast stations at the most important points on the great trade routes will usually be on British territory.

673. And that will apply to all foreign ships?—Yes, it will apply to everybody who adheres to the Convention.

674. Articles XXXVII. and XXXVIII. deal with the International Bureau, do not they?—Yes, Sir.

675. Has this Bureau any executive power?—It has none whatever. The International Bureau has nothing to do with naval wireless telegraphy work, and it has no executive power whatever as regards wireless telegraphy in general. It is simply an office for information and a part of the existing International Bureau of Telegraph Administration.

676. Speaking generally, have the Articles which you have mentioned any prejudicial effect upon naval wireless telegraphy?—I think certainly not, Sir; on the contrary, the safeguards provided against interference, whether wilful or accidental, are decidedly to the advantage of naval work.

Mr. Arthur Lee.

677. Can you say what are the safeguards against wilful interference?—There is the disciplinary Article if the ship keeps on offending.

678. If you can identify the ship?—That is so; she could be identified.

679. Not in a case of wilful interference could she?—You mean, suppose the ship did it for the sake of creating disturbance?

680. For some sinister motive?—I think you could not fail to identify the ship.

Chairman.

681. She is bound to identify herself before she can communicate, is she not?—If she communicates with anybody she is bound to identify herself.

Sir Gilbert Parker.

682. She need not be a licensed ship to interfere, need she?—No; she could take an installation without a licence, but then she would get into trouble with her own authorities for having an installation without a licence.

Chairman.

683. It would be a wireless pirate?—Yes, it would be a wireless pirate, and she would be everybody else's enemy.

684. You

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Mr. Sydney Buxton.

684. You would not anticipate that there would be many cases of such ships, would you?—I do not think you can legislate to make it impossible for pirates, but only to make it as difficult as possible for them.

Chairman.

685. Now, does this absence of any prejudicial effect relate to war as well as to peace arrangements?—Yes, it does. The question of war arrangements, as I have said, remains exactly as it was before, and the Government has unfettered discretion to adopt whatever course of action it may consider desirable in war.

686. In the opinion of the Admiralty would Imperial interests in any way be injured by the Convention?—No. As regards Imperial interests the Admiralty are of opinion that they are uninjured by the Convention.

687. Is the Marconi system in general use in the Colonies?—No, Sir; it is in use in Canada and it is in use in Newfoundland, but in the other Colonies it is not in use; in fact, the West Indian Islands have one or two installations of another type; and India, in what she has done in the matter of wireless telegraphy, is also using another type (the Lodge-Muirhead). It is clear that neither the Marconi system nor any other system can be forced upon the Colonies against their will; and if they elect to instal a system the owners of which are ready and willing to accept the principle of intercommunication with other systems they cannot be prevented from doing so; still less is it possible to force any particular system on foreign nations.

Sir Gilbert Parker.

688. Would there be any particular advantage if there were a uniform system?—No, I do not see any as long as the system was good and efficient.

Chairman.

689. Is intercommunication generally desirable from the point of view of the mercantile marine?—I think it is. I think if other countries enforce the principle of intercommunication and this country does not, the mercantile marine of other nations will before long have a larger and freer use of wireless telegraphy than our own.

690. What would be the effect on the Marconi Company if their policy of non-communication prevailed?—Well, of course, Sir, this is only my own opinion; I do not know other people's business, but it appears to me that if the Marconi Companies persist in maintaining their policy of non-intercommunication they are placing in their own way a great obstacle to the development of their system throughout the British Dominions and elsewhere; whereas, if they accepted the principle their system would have an equal chance with others of being accepted on its merits.

691. Would it not be an advantage to us from the point of view of war requirements to have as many British wireless stations as we can

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on British territory?—Yes, certainly it would, Sir. It is clearly to our interest that as many as possible of the wireless stations of the world should be British stations, and the reason is that in time of war we can control such stations, whereas we can have no power of control over stations on foreign soil. The position of our British Possessions on all the most important points of the great trade routes will enable us to meet the ordinary peace requirements of other nations for commercial wireless working, so long as our British stations are ready to communicate with all comers, and consequently foreign nations will have little or no inducement to erect stations of their own on foreign soil. If, however, we stand outside the Convention and refuse intercommunication, it seems to me that one result will clearly be that we shall thereby encourage the erection of wireless stations on foreign soil over which we can in war exercise no control.

692. So that you believe that the Convention will directly assist to increase the number of stations on British soil?—I do, Sir.

Sir Gilbert Parker.

693. What is the proportion of naval stations to commercial stations?—At home or abroad?

694. At home—in the United Kingdom?—You have the list of all of them; I cannot say off-hand. We have got 12 naval stations in the United Kingdom. I could not say the number straight off of commercial stations in the United Kingdom—but I could easily get it.

Chairman.

695. If we stood out of the Convention would there be anything to prevent foreign stations being erected on British soil?—It is within the discretion of each Administration. No one can erect a station without a licence, and if the Government chooses to grant a licence a station can be put up; if the Government chooses to refuse a licence, the station cannot be put up.

Mr. Arthur Lee.

696. That would be absolutely under the control of the Postmaster-General, would it not?—At home it would be under the control of the Postmaster-General; and abroad there is legislation in, I think, every single colony.

Chairman.

697. You have already told us that you consider the Convention would have been signed even if Great Britain had stood out?—Yes; it was inevitable.

698. What effect do you consider on the whole that the participation of Great Britain had on the drafting of the Convention?—I think it has had a very great effect indeed. We watched every line of every clause, and we tried from beginning to end to get the Convention into a form which would suit us and do us no harm; and I think we succeeded.

699. What provision is made for future modifications which time may show to be necessary in

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in the Convention or in the Regulations?—The Convention and the Regulations can be modified in future at the future conferences which will take place from time to time; and there is no doubt that both the Convention and the "Reglement" will require amendment in details owing to the further experience that all nations will have gained in wireless telegraphy, and through scientific developments in the matter. It will, however, be far easier five years hence to introduce any necessary amendments to the present Convention at the next Conference than it would have been to adjust at the next Conference in the interests of this country, a Convention originally framed without regard to such interests.

700. So that, speaking here as practically representing the Board of Admiralty, you say that the Admiralty is satisfied that the naval requirements are fully safeguarded in the Convention?—Yes.

701. And that in the opinion of the Admiralty it is better that we should join the Convention than not?—Yes.

702. Do the provisions of the Convention include ship to ship wireless work?—No. When I say "the provisions of the Convention do not," that is true, because it forms an additional document—an additional engagement. The question was raised by the American Delegation. We said that it had not been in the original *Projet de Convention*, and we were not prepared to deal with it; and finally those countries which were willing to accept the ship to ship arrangement joined in signing an additional engagement to which we are not parties.

703. You have got no other point you wish to put before the Committee, have you?—No, Sir.

Mr. Sydney Buxton.

704. I understand that the instructions under which you acted, and which you have explained to us, were drawn up after full consultation between the various Departments concerned?—Yes.

705. Did they follow more or less the lines of the proposals of 1904 with additional safeguards desired by the Admiralty?—They did entirely.

706. I should like to ask you some questions in regard to what are considered the essential matters to which you have referred, without which, unless they were included in the Convention, the delegates were instructed not to sign. Perhaps I had better put them one by one—that is the simplest way of doing it. Was the first that naval and military stations were to be absolutely outside the Convention except in regard to these minor matters to which you have referred?—Yes.

707. And that, I understand you to say, has been secured?—It has been secured.

708. And that supplemental secret apparatus may be set up at stations open to public traffic which could be carried on side by side with the ordinary intercommunicating apparatus?—Exactly; that was ordered and that has been secured.

Mr. Sydney Buxton—continued.

709. Was this another point—that regulations should be drawn up together with such provision for their enforcement as would in the opinion of the Admiralty be adequate for the purpose of effective control over the general transmission of messages to or from stations on British territory and of preventing interference and confusion?—Yes.

710. You have explained in some detail this Regulation?—The whole of the Convention and the Regulations are really, Sir, moulded with a view to securing that provision which you have just mentioned.

711. And the Regulations that were finally introduced, I understood you to say, were practically Regulations not only agreed to by the Admiralty but suggested by the Admiralty and adopted by the Conference in the Convention; is that so?—Exactly.

712. Then there is the other point to which you have referred, namely, the power to exempt stations, that the Government should have full liberty to exempt such stations as they think fit subject to the condition that other convenient stations should be opened?—Yes.

713. And that you obtained?—Yes.

714. In addition to that, as appears from Article III. of the Final Protocol—I presume acting also under instructions—there was a declaration—practically it amounts to a declaration—on the part of the Government of full liberty to decide: "This Government has full liberty to decide from time to time, according to its own judgment, how many and what stations shall be exempted"?—Yes.

715. Had you further instructions with regard to two other Articles, one (I think it is) the old Article 17, what is called the "boycotting" Article, what was the nature of that, or what do you say about it?—That we would not have it at any price.

716. Will you explain to the Committee what it was, and why you "would not have it at any price"?—The old Article 17, Sir, was: "The High Contracting Parties undertake not to grant authority to install and work wireless telegraph stations on their territory to any private enterprise which may work such stations on the territory of a non-contracting State and refuse to conform to the provisions of the present Convention with respect to these installations. This clause shall not be applicable to States which declare their inability to enforce it owing to their internal legislation."

717. What would have been the effect of that article if it had been carried?—It would have required all the States who joined the Convention to boycott all systems of wireless telegraphy which did not conform to the Convention in non-contracting States.

718. You obtained the excision of that?—We got that Article struck out altogether.

719. Then there was Article 22—the arbitration Article—have not you secured some alteration in that?—Yes, Article 22. This arbitration Article was very drastic; it said: "The question at issue shall be decided by arbitration." As we got it amended it is: "The question at issue may

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may, by common consent, be submitted to arbitration."

720. That is to say no country is bound to go into arbitration with regard to a particular point unless they wish to do so?—Exactly.

721. Then these points to which I have referred were, I gather from what you have said, points as to which, unless they were agreed to by the Convention, the delegates as a whole had been instructed not to sign?—Exactly, Sir.

722. Then there were other points to which you have referred in which you consider the Convention has been improved apart from these particular points. Your general position is, as I understand, that the Convention in any case would have gone through, whether we signed or not?—I am quite sure of it.

723. And that the Convention as it stands is advantageous to Admiralty interests?—It is.

724. And lastly I think you went further and said—at all events, I understood you to say—that if we stood out of the Convention it would be a serious matter for us and encourage the erection of foreign stations as distinguished from British stations?—Exactly.

725. And also that from your Admiralty point of view the larger the number of British stations and the fewer the number of foreign stations, the better?—Stations on British soil.

726. I meant on British soil. In regard to the Agreement to which you referred—I mean the Post Office Marconi Agreement—was that entered into voluntarily by the Marconi Company with the Post Office, and concurred in by the Admiralty?—So far as I am aware, quite voluntarily.

727. And the Admiralty were consulted with regard to this Clause 10?—The Admiralty were consulted—certainly.

Mr. Arthur Lee.

728. I gather from what you say that the Admiralty, now at any rate, is whole-heartedly in favour of the Convention being ratified?—Yes.

729. And there are no points in it which it considers injurious or disadvantageous to purely naval interests?—That is so.

730. In fact, I think you said just now that you considered the Convention as actually advantageous to purely naval interests?—Yes, it is.

731. Then do I gather from that that the Admiralty considers that the principle of intercommunication *per se* is advantageous to naval interests?—They think that the principle of intercommunication, as safeguarded in the present Convention, is certainly not disadvantageous to naval interests, but there are other things in the Convention which are decidedly advantageous to naval interests, and they think that the principle of intercommunication will encourage the erection of stations on British territory, which is directly advantageous to naval interests.

732. How long has the Admiralty favoured this principle of intercommunication?—The Admiralty came to their conclusion in February, 1904, as I stated in my evidence-in-chief, and

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Mr. Arthur Lee—continued.

it is on that decision really of February, 1904, that the present Convention is moulded.

733. May I ask you this question on that: You say that the Admiralty was in favour of the principle of intercommunication in February, 1904. I notice in the translation of the *Process Verbaux* that almost the only observations (apparently) made at the Conference by the Naval Delegate, as distinct from the first British Delegate (who, I understand, acted generally as spokesman), consist of a very strong declaration by the Chief Naval Delegate, Captain Bethell, arguing very forcibly against the principle of intercommunication. Let me draw your attention to one or two of the remarks that he made. He said that Great Britain "already possesses a widely-extended radio-telegraphic organisation which satisfactorily meets her requirements, and which will be seriously affected by the adoption of the principle of intercommunication." Then a little lower down he says "a solution would be better arrived at by a modified method of intercommunication than by universal intercommunication." Then he goes on in that statement to argue the disadvantages of compulsory intercommunication, and at the end of the next paragraph in arguing against intercommunication he says that under the existing system "this station will not cause disturbance to its neighbour, and will not be affected by the latter. It will also take its share of the traffic, and in this way the congestion will be diminished." And then in the next paragraph he points out the dangers to the development of the science under the principle of compulsory intercommunication, and finally he says: "It does not then appear desirable that the Governments should bind themselves to restrictions which are, in fact, superfluous, since satisfaction can be given to the requirements of general intercommunication by the provision of stations devoted to this object." Having read to you those extracts, I ask you if the whole tenor of his statement was not strongly against the principle of intercommunication?—No, I am afraid I cannot say that I think it was, Sir. I am perfectly acquainted with the circumstances under which his statement was written, and we have got what we stated we wanted *here*—a modified intercommunication. In the first paragraph you quoted he says it will "be better arrived at by a modified method of intercommunication than by universal intercommunication;" therefore we wanted the exempted stations, and in the next paragraph he says it "will not cause disturbance to its neighbour and will not be affected by the latter. It will also take its share of the traffic." We have got that because our exempted stations enable us to work each of those stations on a different wave length to its neighbour and to divide the traffic; and as to the last part you have quoted about the development of the science, that is what I have stated in my evidence-in-chief, is one of the objects of our keeping the exempted stations in our hands, so that the science shall not be hindered. And then, may I point out, Sir, that later on Captain Bethell (in the next paragraph but one) state

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the conclusion of his argument thus: "It seems to us desirable that each Government should be able to reserve stations which will not come under the obligation of general intercommunication."

734. I take that as being a mitigation of the proposed system of intercommunication rather than an advocacy of it?—I think not, Sir. I think it was not intended so. We wanted to lead up to a point to be able to put before the Conference the reasons why we were asking for exempted stations.

Mr. Sydney Buxton.

735. His speech, or statement, was made in connection with the statement of the British Delegates, acting under instructions from home, was it not; that they were at the beginning to state that it would be a *sine qua non* for signature that there should be exempted stations?—That is exactly the circumstance under which it was made.

736. And as regards the question of scientific considerations there is the last paragraph in which I see Captain Bethell says: "Great Britain desires finally that the nature of the international regulations should be such that the progress of radiotelegraphy may be neither hampered nor arrested." That was the object, I take it, of the regulations to which you have referred?—Exactly.

737. To meet that phase of the question?—Yes.

Mr. Arthur Lee.

738. I quite understand that the naval delegates eventually agreed to this principle, because they considered that certain objections had been met, but am I right in understanding that the Admiralty itself was in favour of the general principle of intercommunication before the delegates went to the Conference?—Provided we could get the safeguards that the Admiralty thought necessary.

Sir Gilbert Parker.

739. That is by exempted stations you mean?—That is only one of the points.

Chairman.

740. One of many others?—Many others.

Mr. Arthur Lee.

741. Was that the view of the Admiralty, say in August, 1906?—The view of the Admiralty in August, 1906, as far as I know, was the view that was laid down in February, 1904. Certainly, while we were discussing the likely proceedings of the Conference we saw that there were considerable difficulties in our way and that the Convention, as it was put before us, the German *Projet*, wanted to be very considerably modified; but that was all in the course of discussion and by frank, open and free discussion of all these difficulties it was seen that the difficulties could be met.

742. Was this discussion you are referring to the discussion that you spoke of as taking place at the Inter-Departmental Committee or Conference that met in the course of last summer?—Yes, we had many meetings.

Mr. Arthur Lee—continued.

743. Do I understand that, as a result of this Conference, the Admiralty expressed itself officially as being generally in favour of ratification of the Convention subject to certain modifications being introduced?—Certainly. That was the tenor of the instructions to the delegates from the Admiralty itself.

744. Was that decision embodied in any official document?—There were the instructions to the delegates.

745. I do not mean that; I mean the decision of the Admiralty with regard to the Inter-Departmental Conferences that had taken place.

Mr. Lambert.

746. That would not be a matter within your cognisance, would it?—No; there may have been any amount of documents and I might not have seen them. I only know what were the orders given to me. It is rather difficult to say. I might say that it was all embodied in an official document and be quite wrong; I might say that it was not embodied in an official document, and equally I would be wrong.

Mr. Arthur Lee.

747. I will put it in this way: Do you know of any official decision of the Admiralty in the form of a document which would be opposed to the principle of the Convention at that period—during last summer?—Do I know of any official decision of the Admiralty in a document which would be opposed to it? No, I do not. As I have said in my former answers there was much discussion before the Delegates received their final orders, and confidential memoranda were written in connection with this discussion, but the final decision was as I have stated.

748. I should like now to ask you a question with regard to reserve stations which I gather you consider to be the chief safeguard from the naval point of view—the right to exempt such stations?—We consider it an important safeguard.

749. Could you say what is the Admiralty policy with regard to such important strategical points as Gibraltar, Malta, Hong Kong, the Cape, and so on. Do you consider it desirable that they should be commercial stations or non-commercial stations?—I think it is impossible to answer the question, Sir, in a general way like that, because you must consider the position which now is. At the present moment there is not a commercial station at Gibraltar, there is not a commercial station at Malta, neither is there at Hong Kong.

750. But will it not be necessary under the Convention that they should be made non-exempted stations?—I do not see that it is necessary under the Convention for any one of them to do any commercial work at all; I think it is quite possible that it might be desirable, but there is nothing in the Convention to make us put up a commercial station in a place where one does not exist, and there is not one at Hong Kong, there is not one at Malta, and there is not one at Gibraltar.

751. I thought there was a provision in the Convention by which if a station was exempted, there

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there was an obligation upon the Government to put up another station to serve the same region?—Precisely. That is quite true; but if there is not a station existing it cannot be exempted; and, if it is not exempted, then the obligation does not come in.

752. So you suggest that Malta, Gibraltar, Hong Kong, and so forth do not at present do any commercial work?—No; they are naval stations, and as such, under Article 21, they do not come under the Convention.

753. I am rather puzzled upon that point, because I remember myself sending a message from Gibraltar to a German ship that was approaching?—I do not know how you did it.

754. And I got a reply?—I am glad you got the reply, but I am afraid it was very irregular.

755. From shore to ship?—I am glad they answered you, but you did not have Admiralty's sanction, Sir, did you?

756. It may possibly have been done?—When you were at the Admiralty?

757. Yes?—That may be the reason.

758. I only want to bring out the point that at present passenger ships have no means of communicating by wireless telegraphy with Gibraltar or Malta?—They have not.

759. Could you say to what extent, if any, the Admiralty Agreement with the Marconi Company would be affected by ratification of the Convention?—It will be "affected" because you see there is a provision in Clause 7 of the Admiralty Agreement.

760. That is the one I was coming to?—This is one I quoted in my evidence-in-chief, "in the event of the Commissioners failing to observe the provisions of this clause" (that is, the non-intercommunication) "in consequence of any legislation," etc., etc., "the Company shall be entitled to compensation (to be settled by arbitration in accordance with the provisions of Clause 16 hereof) in respect of the profit which they would have made had the Commissioners continued to observe such provisions during the whole term of this Agreement." But against that there is Clause 10 of the Postmaster-General's Agreement, by which the Marconi Company agree to relieve the Admiralty and Lloyds from various things, including the compensation.

761. So that Article 10 of the Postmaster-General's Agreement really relieves the Admiralty of all responsibility in connection with Article 7 of their own Agreement?—It certainly relieves them of the main responsibility—I would not like to say *all* until I had read it carefully again. Yes, it does relieve.

762. The Admiralty Agreement refers to any legislation?—Yes.

763. I presume there is no question of legislation at present. The Convention does not rank as legislation?—No, but I would say that at the time we made this Agreement with the Marconi Company there was no legislation. Legislation commenced with the Wireless Telegraphy Act, 1904, which might have contained something affecting this.

764. But it does not?—No.

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Mr. Arthur Lee—continued.

765. Then you do not think there is any serious ground for a claim for compensation against the Admiralty under the terms of this Agreement in case this Convention is ratified?—I do not see where it comes in, I do not see what grounds there are for it.

766. Yes, but is that the deliberate opinion of the Admiralty, fortified by legal advice?—I do not know that the Admiralty have taken legal advice precisely on that, the question has not arisen. As we understand the agreements that have already been made, that is the opinion of the Admiralty.

767. But you do not know that it is based upon any authoritative advice?—No I cannot say that I know that it is.

768. Can you say from your own knowledge whether this matter has been referred to the Defence Committee, the whole question?—I am afraid it is not in my power to answer that question.

769. You have no decision at any rate?—No.

770. Then I should like to ask you a question on another point—that is, with regard to the points raised on Article XXVIII. of the Regulations to which you referred, beginning with Article XXVIII, and the other Article which I think binds countries not to put up installations which will interfere, if it can be avoided, and the point of using more power than is necessary. Those are the two points?—Yes.

771. Do you know if there is any ground for the report in the Press, which is feared generally, that Germany is setting up a long-distance installation in Germany with a view to communicating with ships in the Atlantic?—I have seen that station at Nauen.

772. Then that report is true?—There is a station which can communicate with ships in the Atlantic, but I am not prepared to say that Germany put it up for that purpose; in fact, I think it was an experimental station.

773. I want just to follow that point up. Would the erecting of such a station be permissible under the terms of the Convention? Would it not necessarily cause interference with our stations in the Channel and the South of Ireland?—No. By the Convention a ship is obliged to communicate with the nearest shore station, and certainly for a ship to the South of Ireland the nearest shore station is Nauen, which is a German station outside Berlin.

774. My point is whether the German Government, by operating this long-distance station, would not almost necessarily interfere with the working of our own stations, which are nearer to the Atlantic, and does the Convention preclude them from operating such a station?—I do not think it would interfere, because you see we have a long-distance station of a similar kind—that is Poldhu Station—and close to that are other shorter stations, and they do not mutually interfere.

775. Then you anticipate that the German Government could operate this long-distance station for their Atlantic work, and not be obliged to use our long-distance station?—Yes, and

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and I do not think they do use our long-distance stations.

776. Surely the German mail steamers, for example, always use our stations, either Poldhu or Rosslare, or the South of Ireland—Brow Head?—The long-distance Irish station is not finished yet. I think perhaps I am not really quite clear as to what it is you are wanting to get. There is this German station. This German station can speak out into the Atlantic, but for ship to shore work—which is the work that this Convention that we have got here is especially designed to look out for—Nauen does not come in.

777. I am trying to see whether these two regulations that bind the signatory powers not to interfere unnecessarily and not to use unnecessary energy really have any practical value. If Germany—or to go further back if you like and say Russia—is allowed to put up a long distance station there to serve the same region that will be served by Poldhu and Brow Head, surely those two points become a dead letter?—Yes, but is not that quite contrary to the Convention altogether?

778. That is what I want to know?—A ship coming up must communicate with the nearest shore station. If a German ship comes up the Channel she cannot force her communication through to Nauen, even supposing she had sufficient transmitting power. I ought to say, perhaps, that I am not a technical expert on wireless telegraphy and perhaps you will press the technical people on this.

779. Yes, I think perhaps I had better reserve this point for a technical witness?—If you please.

Chairman.

780. But I suppose under the Convention Clause a foreign ship on its journey out in the Atlantic is bound to communicate with the English coast station?—As being the nearest, yes.

Sir Gilbert Parker.

781. There is nothing compulsory about it, is there. The sender on board the ship can choose the station, can he not?—He can choose the station but he cannot work with it, if it would cause any trouble. It is said in the Article that “a sender on board ship is at liberty to indicate the coast station by which he desires his radio-telegram to be despatched.” (In connection with that I would say first of all that the German station I am being asked about is not a coast station.) “The ship station then waits until this coast station becomes the nearest. If this condition cannot be fulfilled the sender’s wishes are only complied with if transmission can be effected without interfering with the service of other stations.”

782. It would appear, then, that this case does not cover the case raised by Mr. Lee at all. I take it, it is an interior station?—It is an inland station.

Mr. Arthur Lee.

783. I am sorry to have to press this point but it seems to me to be of the utmost import-

Mr. Arthur Lee—continued.

ance. Is it in the power of any foreign government, if this Convention is ratified, to erect a long-distance station anywhere within its territory which shall have the right to communicate over the heads, so to speak, of our stations which do come under the Convention, and so run the risk of interfering with them and of using such energy as will affect their proper working?—No; I say that by the Convention everybody is bound to try and avoid interference. Certainly a foreign government can erect a station in its own territory, obviously; so it can now quite apart from the wireless Telegraph Convention, but whereas it can do so to-day and blur up the whole of the neighbourhood round by sending out messages, under the Convention, by mutual arrangement, we shall all be obliged to work so as to interfere with one another as little as possible.

784. You think, then, that under the Convention the German Government will be obliged to give up this long-distance station?—No, I do not. I think it will be bound to try to work this station so as to cause as little interference as possible, as other people must do.

785. I must press the point. As I understood the technical point, I understood that it was an impossibility to do it?—As I say, I am not an expert in technical details.

Mr. Lambert.

786. Were it not for the Convention there would be no limit at all?—Anybody at this moment—the hour that now is—can do anything they like. It would be quite possible if everybody put their minds to it—as far as I understand the present state of things—to make wireless signalling practically impossible.

Chairman.

787. The particular point as regards interference is, that the German high-pressure station can communicate with a ship out at sea, under the Convention, provided it can do so without creating undue interference or confusion?—Yes.

Mr. Arthur Lee.

788. It was stated I think by Mr. Babington Smith that the British stations generally are a comparatively small proportion of the existing stations throughout the world?—He did not say that, did he, British stations?

789. Yes, that they were a small proportion?—Did he say that?

790. British and Colonial?—I do not exactly remember, Sir, but what was it you were going to ask me?

791. Special attention was drawn to the United States stations as being very numerous; I want to ask you if you know whether the greater portion of the United States stations are public stations or are naval and military stations?—I cannot tell you, Sir; but I think we have already given all that information in *this* book. I cannot tell you offhand. There are about eight different systems I understand in the United States. The United States telegraphy is,

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is, altogether, not very formally regulated I believe, but I could not answer you straight off. I can give the information from *this* book.

792. Then you cannot say whether it is a fact that the large proportion of stations open for commercial work throughout the world are British stations?—No. Beyond the United Kingdom you see they are, at present, for one thing, in an attitude of waiting, and there is practically very little development all through our Colonial empire, with the exception of Canada.

793. At any rate you have not got information upon the point?—No.

Sir Edward Sassoon.

794. I understand that you were not present at the Conference of 1903?—No.

795. Either as a Delegate or in any other capacity?—No, I was not there in 1903.

796. But you had been in touch with those who did go there?—At the time I was working in the Admiralty with the Admiralty Delegate, Captain Heath.

797. We also understand that the Conference of 1903 proved abortive, mainly owing to the opposition of Great Britain, was it not?—Well, I am not quite prepared to say that. It hardly proved "abortive," because it was only, I think, intended to get out a sort of general line which could be proceeded on later, and that is what it did do, but Great Britain made a formal declaration that they did not join in the project which the 1903 Conference put forward.

798. Yes, and if Great Britain had elected to *adhere* would the Conference not have taken the form of a Convention as the result of the Conference?—I think not. I do not think it was intended to get straight to work then; I think it was intended to break up the ground for future conferences.

799. The Admiralty could not very well have concurred, could they, in view of the fact that they had just then concluded an agreement with the Marconi Company?—But much more in view of the fact that we had not any legislative power at all.

800. I put it to you whether it would have been seemly on the part of the Admiralty to have adhered to a Convention after having signed a contract which expressly provided against the principle of intercommunication except as regards Admiralty coasting ships communicating with ships of the mercantile marine?—I do not see why they should not Sir, because you see in the contract you are speaking about they contemplated a possible alteration in the thing.

801. What page are you quoting from?—It is provided for in Article VII. They made this contract that they would not intercommunicate.

802. That they would not intercommunicate?—That they would not intercommunicate; but then there was the saving clause, that in the event of their failing to observe this condition in consequence of any legislation and so on, they were to take certain action. I do not see that

Sir Edward Sassoon—continued.

it would have been an improper attitude to have adopted.

803. Could you state to the Committee any other differences in essential points other than the question of boycotting and of arbitration which induced the Admiralty Delegates last year to accept the principle of intercommunication? Yes, there was the exempted stations.

804. The exempted stations. That is practically the only point?—No, I do not say that at all.

805. With the exception of the boycotting, the arbitration and the exempting of stations, was there any other important point?—There is another very important point.

806. Will you kindly state what that point is?—The means to be adopted in order to minimise interference and to enforce the rules—these Articles that I have quoted in my evidence in chief about the qualifications of the apparatus and the operators.

807. Could you say whether there was a mode of recording any difference of opinion between the Admiralty and the Post Office Delegates as to the policy to be pursued—I mean whether there was any point of difference in Berlin between the Admiralty Delegates and the Post Office Delegates?—There was none so far as I know, Sir, and I believe I was at every meeting that we held.

808. And I take it that the Admiralty attach special importance to the adoption of measures necessary to the observance of the stipulations of the Regulations?—They do.

809. And do you consider that the provisions of the Convention enable the clauses to be enforced with any degree of adequacy?—I do.

810. Will you tell the Committee, supposing there are two ships of competing lines, having wireless installations worked by their own operators, or by the operators of different companies, and they were simultaneously within range of the same coast station, would not the element of competition increase the risk of a breach of the Regulations?—It is the business of the coast station to tell them what to do—to regulate the traffic and say which ship is to be taken first; the coast station will be the regulating authority; they cannot both do it at once.

811. And there are suitable penalties provided against any breach of these regulations?—Certainly.

812. But taking it on general grounds, if there were no competition between the operators working the station there would be possibly less risk of breaches?—That is to say, if all the world were prepared to work with a due regard to the convenience of other people, undoubtedly that would be so—if nobody wanted to get before anybody else.

Mr. Gwynn.

813. I should just like to press that point a little. If you had a universal staff of operators working all the instruments upon the ships of one organisation, there would surely then be less risk of bother?—You mean to say that if all wireless

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wireless telegraphy throughout the world—not only in Europe, but everywhere—was in one line.

814. If it was centralised under either one organisation or under organisations working together?—The object of the Convention is to try to get the organisations working together. I quite agree that if it were possible for all wireless telegraphy work to be controlled by one person that would be an ideal state of things.

Mr. Lambert.

815. Like one language?—Precisely.

Sir Edward Sassoon.

816. What is your view as to the possibility of interference and disturbance of our coast stations from the obligation to intercommunicate?—I think, Sir, the chance of interference with our coast stations from the obligation to intercommunicate is considerably less than the chance of interference with our coast stations from wireless telegraphy as it now is, without any obligation to intercommunicate.

817. That is to say there is less understanding between those who work the apparatus now than there would be if the Convention was ratified?—That is decidedly my opinion.

818. Do you consider that the fact of exempting stations would absolutely avert the risk of interference?—I think in a crowded locality it would minimise it; it would greatly lessen it.

819. Yet, I take it, you can conceive occasions and cases where disturbance might be created?—I can and I do, Sir. In all wireless telegraphy business I can conceive occasions on which there might be disturbance.

820. What was the object of Great Britain refusing to accept the proposal of the United States with regard to intercommunication between ship and ship?—We had not gone there to do it. The object with which we were sent to Berlin was to discuss the Convention relating to ship and shore and nobody was ready for ship and ship; the time is hardly come for that and we were not prepared to discuss it; and, moreover, as the law is at present, I think I am right in saying that there is no law which will make one ship communicate with another even by the semaphore or flag signal; and it did not seem reasonable to make a law that they should communicate with wireless telegraphy in a way in which they were not compelled to do with flags; and lastly, Sir—and I think the most important thing of all—it is important to encourage wireless telegraphy. Supposing a “tramp” gets a wireless equipment, she will only use it when she is making land, and consequently she need have a very small wireless staff, but if it were a universal obligation that she must always communicate with any other ship, as far as I can see the “tramp” would have to keep a wireless watch all the way from the Channel to Australia which seems unreasonable.

821. You think it might be placing an undue burden upon the mercantile marine of the world?—That is how it occurred to us.

Sir Edward Sassoon—continued.

822. Could you tell us why it is that the Canadian Government have chosen to adopt the Marconi system exclusively, have you any idea of the reason why?—Have they adopted it exclusively, Sir.

823. So I understand. You do not know?—I do not understand that they have.

824. I understand that the Canadian Government is perfectly ready to allow other classes or systems of installation of apparatus provided there is no interference caused to the Government stations. That permission has not been able to be availed of because in part it has been found impracticable to comply with that condition?—I cannot say, I do not know, Sir. I know that the Canadian Government have made an agreement with Mr. Marconi. I know that agreement does not debar all other installations and I know that quite recently they were considering the application of another Company.

825. Now I want to ask you a few questions with regard to the wave length. The Secretary of the Post Office told us (I think it is Question 10) that “There have been attempts to devise methods of directing the waves, or at least of sending them with the greatest energy in one particular direction”?—Yes. Might I say, Sir, on that that I am not a technical expert; I am willing to answer to the best of my ability, but I do not want to talk nonsense about what I do not understand.

826. I think you might perhaps be able to answer this: If a hostile squadron were approaching our shores and the ships were exchanging messages by wireless telegraphy, would it be possible by means of the apparatus that we have in use now, to determine the direction from which it was coming?—I would sooner that you would ask a technical witness, Sir, about that; I think not.

827. Now as regards the voting power, have you any views as to the adequacy of the voting power assigned to Great Britain and her colonies?—Yes, Sir. In spite of anything that we could do that has already been settled; you can really put it in a nutshell: we tried to get seven votes and we got six.

Mr. Gwynn.

828. I will ask you a question first of all if I may, about a small matter which does not affect the general line of my cross-examination. You used the words “coast station” just now in a way that led me to believe that you might be making a distinction between a coast station and a station erected inland, and as if a station that was erected inland would be exempted from certain of the provisions of this Convention: is that so?—It is defined, I think. “Coast station” is strictly defined as you will see if you look at page 55 of the translation—the bottom paragraph. It says: “The term ‘coast station’ means any radiotelegraph station which is established on land or on board a ship permanently moored, and which is used for the exchange of correspondence with ships at sea.”

Mr. Arthur Lee.

829. It might be a long way inland, might it not?—It might be a long way inland if used for

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Mr. Arthur Lee—continued.

for the exchange of correspondence with ships at sea.

Mr. Gwynn.

830. Now, on the general point, I understand that there are a great many of the existing wireless stations actually on the shore?—That is so.

831. That is to say they are visible from the shore?—They are.

832. In the event of war would that not necessitate special protection for those stations?—We have borne that in mind. We do not like, as a matter of fact, stations which are very prominent on the shore line; we would sooner have them a little further in shore; and that is a point we bear in mind when deciding on a site for a station.

Chairman.

833. In deciding when to erect any new station?—Yes.

Mr. Gwynn.

834. Now coming to the consideration of more general matters, what would you say were the Admiralty's prime interests in this matter, how would you define it?—I should say the Admiralty's prime interest was that there should be no Convention which would, so to speak, wrap up wireless telegraphy in swaddling clothes (that would delay its growth), and also that there should be nothing in the Convention which would in any way hinder the British Government from doing what they wanted in the matter of wireless telegraphy in the case of war; because it is recognised that in the case of naval war wireless telegraphy is a most important means of communication.

835. Practically, I suppose the Admiralty is very keenly interested in keeping the lines clear, so to say, in limiting interference?—Very.

836. And I suppose that Great Britain has more to gain by keeping the lines clear than any other power in proportion, as its naval and maritime interests are greater?—I think she has.

837. And do you consider that by signing this Convention the possibility of interference has been lessened?—I do.

838. Take the alternative to the signing of this Convention. What would be likely to happen. A fight, I suppose, between a great company in British regions and a combination of other companies hostile to it?—I think that is pretty much what it would come to.

839. Mr. Babington Smith told us that if Great Britain did not ratify this Convention he considered that there would be a tendency to interfere largely with British telegraphic arrangements on the part of other countries?—I think that is more than probable.

840. That there would be a state of war, practically?—I think it is quite possible, I think they would feel considerably irritated with us, and they certainly would not be inclined to go out of their way, I think, to make our wireless telegraphy work easy. I am not prepared to say that anybody would come and wilfully say: Now I will make "wireless"

Mr. Gwynn—continued.

impossible to Great Britain, but I do think they would be inimical to us, and that we should have no remedy.

841. Assuming a state of war broke out, would not it be the position that on the one side there would be a great commercial company which practically already controls a world-wide traffic, and on the other side there would be the possibility of a combination for commercial purposes which does not as yet exist?—But is that stating the case quite fairly, Sir? Is it the case of a great company with world-wide wireless work?

842. I ought not, perhaps, to put the question in that way. I will put it thus: Has the Marconi Company in your opinion as it stands, a fair claim to be considered a world-wide service?—No, I do not think they have. I should wish to be quite clear, but I do not see that they have any claim at all to be considered a world-wide company.

843. Is a considerable part of the commercial business of wireless telegraphy being conducted through other companies, do you think?—Taking the world at large?

844. Taking the world at large?—Yes.

845. They have not got so large a staff in the field, have they, that they could face a war such as we have been talking about, with equanimity?—I should not think they could.

846. And you think, on the whole, that the best way to minimise interference is to ratify this Convention?—I do.

847. You do not attach much importance to the objection that has been raised already that if there is not centralised control ships coming into touch with a station at the same time will continue to call, and will disturb other calls for want of a central authority to enforce the penalties?—I think that the regulations under the Convention which have to be observed should prevent these things. The ship will call the shore station—she is bound to do that, and if the shore station cannot attend to her she will say: No, I am busy with another ship; wait your turn.

848. Suppose the people on the ship are impatient and continue to call, what then?—Then they will be contravening the terms of the Convention, and if they persist in doing this, they will render themselves liable to certain inconvenient penalties, even to the cancelling of their licence.

849. You think the control system is sufficient, although the control has to be exercised by the representatives of different countries and competing companies?—I think it is, if each shore station properly grasps its work and carries it out.

850. To what extent do you think that the other commercial interests competing with Marconi have a political character? How far can one say that the German companies, for instance, have the Government behind them?—I think that is a question that it is impossible for me to answer; I do not think anybody could tell you that. You cannot know. Of course, you see all sorts of things in the newspapers, but that is of no value; one really does not know.

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[Continued.]

Mr. Gwynn—continued.

851. On the whole, however, the proposal for this Convention originated with foreign governments and not with the British Government, did it not?—It did.

852. And you would say that the German Government (which does not believe in Free Trade) would be inclined to advocate any political action which would lead to the promotion of a German industry, would you not?—It is very difficult for me to answer that, Sir, because you see it is only my opinion; I might say what I thought, and perhaps it would affect you more than it ought. I do not think this is a case of Germany versus anybody, because really it was Britain against everybody almost, in favour of this inter-communication scheme.

853. Up to 1904 practically the whole business of wireless telegraphy was in British hands you say?—Not in the United States of America nor in Italy.

854. I should have said, I am talking of the Marconi Company when I say in "British hands," or in the hands of a company having its centre in Great Britain?—Certainly not, so far as the United States of America is concerned. It is quite true that most of the stations in the British Isles were Marconi stations, but the reason for that is obvious—as has been explained by Mr. Babington Smith. He explained that the Marconi Company were in possession; and they were licensed because they were in possession.

855. Let me put it like this: If Germany, let us say, had been in the same position as England, in political and commercial control of this invention, in 1904 do you think we should have had this Convention?—Well, I really could not say, but I think it is quite possible that in a year or two we should have asked to have a Convention. It has been put to me that Germany opened the ball—they started the thing—and that is true, but I can quite conceive circumstances in which it would have been desirable that we should have made the first move.

856. That is to say, if we had found that Germany possessed the practical control of an invention so important for military and commercial uses we should probably have moved as Germany did?—No, I do not put it in that way. I mean to say that if this new method of communication—which is in its essential nature so entirely inter-national—had got on to what is really the highway of the nations, so to speak—the Channel and the Baltic—I think it would have been quite possible that Great Britain would have been the first to say: This new method must be Internationally controlled.

857. Apart from our interest in the matter?—Well, of course it would not be altogether apart from our interest in the matter, because the fact of our having interests in the matter would have turned our attention to it. We could not have ever helped having interests in wireless telegraphy because we stand in such a peculiar geographical position.

858. Putting that aspect aside and looking at it exactly from the commercial point of view, do

Mr. Gwynn—continued.

you think that as a result of this Convention—if the Marconi Company should feel themselves aggrieved—probably in future anybody with an invention having great military applications as well as commercial would be entitled—or likely—to take their invention elsewhere than to Great Britain?—I think it would be very unreasonable for people to think that; because you see the Marconi Company always contemplated this Convention as a possible thing. They might feel themselves aggrieved, but because they unreasonably did that, I think it would be quite wrong for somebody else to say I have got an invention, I will go and offer it to another Government.

859. Now let us come to the contention, which is that if the Convention is ratified the effect will be to develop traffic on British soil, and if the Convention is not ratified the effect will be to develop traffic on non-British soil. Is that so in your view?—I think so, generally speaking, that is if the Convention is not ratified by Great Britain.

860. Is not ratified by Great Britain?—I think that will be the effect.

861. You accept that position which was taken up by Mr. Babington Smith?—Yes.

862. Now, practically all the liners passing down the Channel have Marconi wireless apparatus, have not they?—Yes.

863. And there are a great many foreign as well as British liners. There is, I think, on the French coast at least one wireless station at present?—Yes, and more than one.

864. More than one? Do any of the liners that are carrying Marconi apparatus communicate with those stations?—I should suppose that they did not, because those stations are not fitted with Marconi apparatus; and I understand the great thing is that the Marconi people cannot communicate with anybody except those using their own apparatus.

865. Why do not these French and German liners equip themselves with apparatus which would enable them to communicate with the French stations?—Where are those liners you are speaking of coming from?

866. Say the Atlantic liners, for instance?—If they want to speak to a station they can pick up the English stations down Channel, then they can pick up Brow Head when they get by the Fastnet, and then they do not come to any more until they get to Sandy Hook.

867. Practically where there is no intercommunication you find that the traffic passes through stations on British soil although there are stations existing on foreign soil?—Because the natural way out west is to make the English shore; but of course you are taking a particular case in a particular corner of the world. Suppose one of these liners equipped with Marconi apparatus gets out to America, she cannot communicate with any of the American stations except the Marconi stations, so that the British ship at the other end of its journey is not able to communicate.

868. The Convention provides that a maximum of one kilowatt—that is to say, about one-third of a horse power—should be employed for distances

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tances not exceeding 300 kilometres, is that so?—Yes. The answer to your question is, "Yes."

869. Would not that be an excess of power to employ to communicate over a short distance, say, of 30 miles in the British Channel?—Well, again I should like to say I am not a technical witness; but I think I can say that it would be an excessive power; it is more than is needed. A technical witness will answer that better than I could.

Sir William Holland.

870. May I put a question to you in regard to the Defence Committee. Did I understand you rightly to say that the Defence Committee had not arrived at any decision with regard to this Convention?—I said I was not in a position to answer the question. The honourable Member asked me in that connection if I had seen any decision of the Defence Committee on the subject, and I said "No."

871. If a naval station has a monopoly in regard to wave lengths, say from 600 to 1,600 metres, are commercial messages given a monopoly of a shorter length?—It is laid down in the Convention, Sir, that the commercial work should be done with wave lengths of 300 and 600, and then there are certain exceptions to that which apply to stations which cannot use this particular wave length, or stations which have a restricted service and are allowed to use other wave lengths; but they must be under 600 metres or over 1,600 metres.

872. That is not a direct answer to the question I put, which was as to whether commercial messages are given a monopoly of these shorter lengths?—No, they are not.

873. So that if naval stations are allowed to use shorter lengths, there may a good deal of confusion?—There might be—yes.

874. I understand you think that it was in consequence of the presence of the British Delegates in Berlin that modifications in the Convention were obtained, so far as they were obtained?—Very extensive modifications.

875. Do you think it is at all likely, if Great Britain refused to ratify the Convention, that those modifications would be cancelled and the original terms of the Convention revived?—It is only making a guess, Sir, but I should think it is quite possible.

Mr. Lambert.

876. When you went to the Berlin Conference you had several important modifications to suggest in the Convention as it had been submitted to you by the German Government?—Yes.

877. And your modifications were most favourably met?—We got them all, I think.

878. The adhesion of Great Britain at that time was greatly valued as you have mentioned?—Yes.

879. And assuming that Great Britain did not adhere, modifications in our interest would

Mr. Lambert—continued.

possibly be much more difficult later on?—I feel sure of it.

880. Practically may I say that the whole of your Admiralty points were met?—Yes, they were.

881. The maritime interests of Great Britain demand clearness in wireless signalling?—Yes, it is very important.

882. Without the Convention there would be no limit to interference?—There would be none, and I think it would get worse and worse.

883. But with the Convention you have the obligation that is attached to an international agreement?—Yes.

884. And there is no reason to think that any power would deliberately enter into an agreement and then wish to break it?—Hardly; it is to the common interest of all the signatory Powers to observe it.

885. With reference to the point of the interests of Germany in this Convention, may I ask whether other Powers were not equally as anxious to have the Convention as Germany?—I think some Powers were almost more anxious.

886. With regard to the point that wireless telegraphy is largely at present in British hands, is it a fact that other systems have grown greatly during the last few years?—Yes, other systems are certainly on the upward grade.

887. Assuming that the hostility of any company which has now agreements or connections with the Admiralty led that Company to withdraw its wireless apparatus, etc., from the use of the Admiralty, would the Admiralty interests suffer?—No.

888. Is it a fact that the Admiralty have a system of their own of wireless telegraphy upon which they can rely?—Yes.

Sir William Holland.

889. Did not the Admiralty in 1903 debar themselves from using any other system than the Marconi?—Certainly not.

890. I thought you said something to that effect, except on an emergency or in time of war?—We said we would not communicate with other systems, except on an emergency or in time of war, but we have got absolute liberty to use anything we like.

Sir Gilbert Parker.

891. Does the Marconi Company take the view that they have grounds for a claim against the Admiralty for compensation provided this Convention is ratified as signed by Great Britain?—You are asking me: do the Marconi Company take that view?

892. Yes, do they take that view?—I am not prepared to say what view they take. There is in the Agreement, as I stated in my evidence-in-chief, a certain clause which would appear to entitle them to compensation, and then, as I have already pointed out, there is another clause in the Postmaster-General's Agreement which debars them from claiming compensation. What their precise view is (the view of the Company itself) I am unable to say.

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893. The question arises from what has appeared in the papers, perhaps, that such a representation had been made by the Marconi Company to the Government already?—No, the representation they have made at present is that they do not consider themselves bound by the terms of the Agreement they have made with the Postmaster-General.

Mr. Arthur Lee.

894. With reference to a point that I touched on before about the position of certain strategic points like Malta, Gibraltar, Hong Kong, and so forth, you explained that they do not come under the terms of the Convention because they are not at present public stations?—Exactly.

895. Can you say what is the intention of the Admiralty with regard to the policy that is to be pursued with regard to these particular stations: are they to be kept outside the Convention or are they to be made exempted or non-exempted stations?—At the present moment the Admiralty is willing and ready to do in its own stations at Malta and Gibraltar such commercial work as would require to be done; and if the Admiralty did that commercial work at a naval station then clearly the naval station would lose the degree of protection that it has *qua* naval station and would become subject to the Convention. As regards Hong Kong there is a small Admiralty station there, and it was the intention of the Government to make a big one, in which case there also we should have been ready to do commercial work; but at present it is not contemplated to extend the Hong Kong station, and if anybody else wants to do commercial work the Admiralty will not oppose the application.

896. Then I take it your answer is that it is the policy of the Admiralty to make Gibraltar and Malta at any rate non-exempted stations and for them to come under the Convention?—If commercial work is done there at all. Of course I want to emphasise that. At the present moment no commercial work is done there at all.

897. You say the Admiralty are willing?—The Admiralty are willing, if there is a strong demand for commercial work, to do it.

898. They are willing to make it a non-exempted station?—Yes.

899. In which case they would not be as you said (I think your words were) “masters in their own house” at those particular points?—Oh, yes, they would. Why not?

900. If they become non-exempted stations they become subject to international regulation?—Quite so; they then become subject to international regulation, but that does not affect what we can do with these stations in a time of war.

901. Oh, no?—I said we were masters in our own house by making exempted stations, but that is not the only thing which makes us masters in our own house.

Mr. Sydney Buxton.

902. I take it that the Convention not yet having been ratified, and this country having

Mr. Sydney Buxton—continued.

come to no conclusion with regard to this question at present of exempted stations, and so on, the question is left entirely open and undecided?—I think I ought, perhaps, to correct slightly an answer I gave just now. I said the Admiralty would make them non-exempted stations. I would prefer to put it that the Admiralty would be willing to do the commercial work there.

Mr. Arthur Lee.

903. Then you added that if they did that they would be obliged to let the stations come under the Convention?—I did, and that is true.

904. Therefore, they would have to become what is technically called “non-exempted stations?”—No, that is not quite true, you see, because they might come under the Convention and yet be exempted stations. They might come under the Convention for everything else except the intercommunication.

905. But if they were exempted stations they would not do commercial business?—Oh, yes, they would; certainly they would.

906. If they are made exempted stations then there is an obligation to put up another station to serve the same region which was, as shown by previous evidence, a physical impossibility?—Yes, that is first of all assuming that the station is doing commercial work and that it is exempted under the Convention, and then of course we might have to put up another; but may I emphasise that that situation has not arisen. There is no obligation under the Convention that we or anybody else should put up a station in any particular locality; there is only the obligation that if there is a station doing work in a particular locality and we exempt that, we will provide another; so what you say is right if Gibraltar is worked as a commercial station, but I say that as the position is now we are not bound to do any commercial work at Gibraltar; and if we chose never to put up a commercial station at Gibraltar there is nobody who could make us.

907. I quite understand that. As I understood your answers, you say it is in the power of the Admiralty to set up a new class of station, practically—a station which is exempted, but which voluntarily does a certain amount of commercial business—and that that station could carry out the commercial business when it chose without being subject to the limitations of the Convention?—No, I am afraid I have not made myself quite clear. An exempted station is what you may call a station under the Convention with this exception, that it is exempted from the one obligation of intercommunication. Well, now, Gibraltar can be one of three things—it can be a naval station pure and simple, as it is now; it can be a naval station doing commercial work exempted—that is to say, exempted from the obligation of intercommunication—or it can be an ordinary station open for general public correspondence, non-exempted and intercommunicating with everybody.

908. It is a very important point. There is this intermediate class of station which can do the

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the commercial work or not as it chooses, and which is not subject to the terms of the Convention?—But I have not said, Sir, that there is such a class of station.

909. Surely your second class is such a station as that?—No, the second class of station is like all the other stations with this exception, that it is not obliged to intercommunicate with a wireless system other than the one with which it is itself equipped. Let us take a concrete example. We will say that at the Scilly Islands there is an Admiralty station that is outside the Convention altogether; close by is the Lizard Station, and near to that we will say is a station at Hartland Point. Now we will suppose that the Lizard is an exempted station and that the Hartland Point is not, the Lizard and the Hartland Point are alike subject to the terms of this Convention (if it is ratified) with the one exception that Hartland Point has got to pass its messages to everybody and receive them from everybody and the Lizard has only got to pass its messages and receives them from ships with the Marconi apparatus.

910. But if we can have that privilege for any station that we choose—the privilege of being exempted and yet doing commercial business—why did we agree to the principle of non-exemption at all?—Well, the exemption is the *exception*, and the non-exemption is the *principle*.

911. I do not see that we gain anything by agreeing to non-exemption when we could have done both classes of work through an exempted station?—But you must not only look on the existing state of things at home, but think of the state of things we want to see abroad. We want to see wireless stations in our Colonies on British soil. Now, the Colonies are not at all disposed to take a system which would not intercommunicate.

912. The Colonies are self-governing; they can do as they like?—I say the exemption is the *exception*; the intercommunication is the *principle*; we could not have the Convention without accepting the principle.

Sir Gilbert Parker.

913. I did not quite understand your reply to Mr. Lee's question as to whether with these exempted stations it was necessary to have another station which could do the ordinary work of intercommunication within a certain specified distance?—We have agreed to that in Clause 3 of the Final Protocol. We did agree that in cases where a station was exempted another station should be put up which would deal with wireless telegraphy in the region served by the exempted station.

914. Then if a station were established as an exempted station—at Malta, for instance—it would be necessary, suppose you took messages at that exempted station, to establish another station non-exempted on the island of Malta?—Yes, in the same region—practically it would be in the island of Malta.

915. And the same thing would hold good at Gibraltar?—If we had an exempted station at Gibraltar.

Sir Gilbert Parker—continued.

916. Yes, if we had an exempted station at Gibraltar?—Then it would hold good, but I do not think we want to have an exempted station there.

917. It is a question whether it could be or not?—It is not absolutely impossible, even at Gibraltar, to have the two stations; it would be inconvenient because the place is very small; but at the present moment there are two naval stations at Gibraltar, one on the south front, one on the north front, and I suppose at a pinch we could have a commercial station, but as I say, it would not be desirable; it would be better that Gibraltar should do the work.

Mr. Arthur Lee.

918. Is not that in direct conflict with the evidence given by Mr. Babington Smith?—I do not think so.

919. I understood him to say that the stations were to be 50 miles apart?—No; he said he would not tie himself down to any definite distance. I can quote two instances showing that it has been stated that stations can be as little as from three to one and a-half miles apart. You can get any distance almost given by different authorities.

Sir Gilbert Parker.

920. If I am not mistaken that is not the point. What Mr. Babington Smith was speaking of was the point as to wave lengths; that is to say, if you had one station with certain wave lengths, another one established say within 50 miles must have different wave lengths?—I have not his evidence before me and would not like to answer questions on things I have not read and that are not immediately before me.

Chairman.

921. Is the Navy operating any other system than the Marconi system at the present moment?—They are working a system of their own.

922. Assuming the Marconi Company took up a hostile attitude to the Convention would that embarrass the Navy in any way or would they be able to work their wireless system independently of the Marconi Company?—I do not think it would embarrass the Navy at all. The Navy could go on quite comfortably as it is going on to-day.

923. They would have other systems also, would they not?—They would have their own system and they could have any other systems if they wanted them.

924. When you say "their own system" that is a different system to the Marconi system?—Yes.

Mr. Gwynn.

925. "Their own system," has it been published in any way, or is it outside the Patent Laws?—I could not answer that, because I really do not know.

Sir William Holland.

926. Has it a name? What do they call it?—It has no name, Sir.

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927. You

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Mr. Gwynn.

927. You do not think there would be any possibility of a prohibition under the Patent Laws?—I do not see why there should be.

Chairman.

928. You are not prepared to answer questions on this point, I gather?—We have the right by our agreement with the Marconi people to make use of their patent or any other patent that they may acquire.

Mr. Gwynn.

929. In the case of the Admiralty system this is a patent they have not acquired. As I understand, the Navy has got a system which is peculiar to themselves. That is what I understood you to say, that the Navy possessed a separate system of wireless telegraphy which is not the Marconi system nor that followed by any other company?—I think the Navy have a system of their own; but as far as the Rights under the Patent Act are concerned, I am afraid you are taking me rather out of my depth; I do not know.

Mr. Sydney Buxton.

930. May I ask one question in reference to what Mr. Lee asked you. I think there seems to be a little confusion about the three classes of stations you mentioned. I gather that in the first class there are pure naval stations entirely outside the Convention?—Yes.

931. Then in the second class the stations are entirely under the Convention and subject to intercommunication?—Yes.

932. Those are subject to all the conditions of the Convention?—Yes.

933. Then there is the third class of station, and that is a class which either have the restricted communication—it may be some small company between some small point or another—or what are called the “exempted stations,” which are under the Convention and subject to the Convention except as to the obligation to intercommunicate?—Yes.

934. Those are the three classes of station under the Convention?—Those are the three classes under the Convention.

935. As regards the third—I take it you state the “principle” is the second one—that they should be non-exempted stations; the exempted stations are the “exception” to the rule?—Yes.

936. I take it that the non-exempted stations would not have been agreed to by the other powers, unless we had agreed to the general principle of the Convention. They would not have agreed to the non-exempted stations but for that?—Certainly not.

Chairman.

937. Can you say under which category of those three that Mr. Buxton has just described that high pressure station at Nauen

Chairman—continued.

would come?—I am not sure that it would come under either of them, it might be a shore to shore station. It is an experimental station, you see at present, I do not know that it would come under either of them.

938. It would be right outside the Convention?—Yes, it is not doing ship to shore work.

939. It would come under the Convention when it sent a land message out to sea?—Yes.

940. It would come under the Convention then and have to comply with its conditions?—Yes, if it communicated with a ship at sea.

941. And if in its communication with a ship at sea it created interference or confusion, under the Convention I understand it would then have to send the message to one of our stations, in order to comply with the Convention?—No; you are talking of Nauen sending a message to a ship at sea?

942. Yes?—That would be all right; but if in doing that she caused confusion—

943. Confusion or interference?—Then we complain. Whoever was interfered with would complain.

944. Notice would be sent to that station that it was not complying with the Convention?—The complaint would be made to the administration that was responsible for that station.

Mr. Gwynn.

945. Can you locate the cause of disturbance always?—That is rather more a technical point than anything else. If there was special disturbance you would be able to locate it by watching it, but our technical witness will tell you better about that than I can.

Sir Gilbert Parker.

946. If a difficulty arose—with regard to a station which had communicated and caused interruption—as to the settlement of the question it would be arranged by arbitration by common consent?—There is the one case only where the arbitration is not voluntary. If a ship's station was giving so much trouble that any administration had to finally say they could not have anything more to do with it, then arbitration comes in, under Article VII. of the Regulations.

Mr. Arthur Lee.

947. Just one last question. You say it is not a fact that the Admiralty have completely changed their view since August of last year with regard to the advisability of accepting intercommunication?—I think I said that it was not a fact that the Admiralty had completely changed their opinion since February, 1904. The opinion they are acting on now is the opinion they expressed in February, 1904.

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[Continued.]

Commander C. R. PAYNE, R.N. called; and Examined.

Chairman.

948. You are at present serving on His Majesty's ship "Vernon"?—Yes.

949. Can you tell the Committee what experience you have of matters connected with wireless telegraphy?—My connection with wireless telegraphy dates from the year 1900. Since then I have served as follows: One and a-half years as Torpedo Lieutenant in H.M.S. "Vulcan," under Captain (now Admiral) Sir H. B. Jackson, whom I assisted to carry out wireless telegraphy experiments with instruments of his and Mr. Marconi's design; two years as Lieutenant in charge of the Wireless Telegraphy Department of H.M.S. "Vernon"; two years as Torpedo Lieutenant of H.M.S. "Duncan," during which time I was directed to carry out special wireless telegraphy duties in the Mediterranean and Channel Fleets, and for the last 12 months I have held the appointment of Commander in Charge of the Wireless Telegraphy Department in H.M.S. "Vernon."

950. Will you explain to the Committee what the work you do on the "Vernon" is?—The "Vernon" is a torpedo school and has charge of the instruction and design work of wireless telegraphy—naval wireless telegraphy.

951. Stationed at Portsmouth?—Stationed at Portsmouth.

952. The information that you are about to give to the Committee may be said to be purely of a technical character?—Yes.

953. As regards scientific details of wireless telegraphy?—Purely technical.

954. Now do you consider that wireless telegraphy communication is possible between different systems?—Speaking generally, wireless telegraphy communication is possible between ships and stations fitted with different systems, although it may not be possible in certain particular systems; but these systems are at present the exception and their stations, if any, few in number.

955. And do you consider that the wave lengths chosen by the Convention are practical ones to assign for commercial purposes?—Yes. As regards the wave lengths to be used commercially, from my experience I should say they were well chosen and suitable for their work.

956. Do you consider that two wave lengths will be sufficient?—They should prove sufficient for the present, and with the rules laid down in Articles XXIII. and XIX., 5, of the Regulations, the control of the wireless telegraphy traffic by the coast stations, if properly carried out, should allow for all requirements that at present can be foreseen.

957. If the Convention is ratified, do you consider that as regards naval wireless signalling the Navy would be in a better position that it is at present?—As regards the limits of wave length reserved specially for naval purposes, I am sure that the Navy will be in a better position than formerly; for now, being without any International legislation on the subject it is frequently found that some shore station is inter-

Chairman—continued.

fering with our signalling through using a similar, or nearly similar, wave length.

958. Do you consider that the International Regulations, as laid down in the Convention, will be advantageous to wireless signalling?—As regards wireless telegraphy work in the Channel the effect of the Convention cannot help being beneficial and tend to diminish confusion. What I have said naturally follows from Article VIII., where the Convention lays stress on the importance of selecting coast stations so as not to interfere with one another. From Article XXX. 1, of the Regulations the ship should transmit its message through the nearest shore station; and in Article XIX. 5, and XXIII. of the Regulations the control of the traffic is given to the Coast stations. The organisation of wireless telegraphy traffic on these lines is to my mind thoroughly sound.

959. Suppose that Great Britain did not join the Convention, what do you consider would be the effect on wireless signalling?—If Great Britain does not ratify the Convention there will be a far greater chance of interference in the Channel. At the present moment although Great Britain has the greater share of wireless telegraphy signalling in the Channel, there is considerable interference due to there being no general system of organisation for commercial purposes. It is in my opinion essential that Great Britain should have a voice in the organisation of the whole of the commercial wireless telegraphy signalling, especially in the Channel. If she does not there is no guarantee against different organisations being at work in the same confined waters, and such a state of affairs is certain to cause confusion.

960. Can you give the Committee any information as regards the relative merits of the different wireless telegraphy instruments in general use?—In my opinion there is not much to choose between the instruments of the principal systems in use, namely, the Telefunken, the De Forrest, the Marconi, the Fessenden, the Marconi Magnetic Detector is in my opinion the simplest and most reliable receiving device, although not the most sensitive. The transmitting instruments used with the Telefunken, De Forrest and Fessenden systems I prefer to those used with the Marconi system.

961. Does the Navy obtain any special benefits from the Marconi Company as regards improvements in wireless telegraphy?—To my knowledge, since December, 1905, the Navy has not received any new idea from Mr. Marconi or his Company. At that time Mr. Marconi gave a demonstration of his direction experiments at Poldhu, but this had previously been reported by Lieutenant Ryan, R.N. Since then no new ideas or technical advice has been offered to the Navy in accordance with our Agreement, and from my personal experience I find the Navy obtains more assistance from other firms which the Admiralty employs for constructing wireless telegraphy instruments than it does from the Marconi

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[Continued.]

Chairman—continued.

Marconi Company. The Navy therefore is not dependent for further developments in wireless telegraphy upon the Marconi Company.

962. Supposing that certain British possessions abroad were to join the Convention and to adopt systems different to the Marconi system, would this be beneficial or otherwise to naval wireless signalling?—So far as regards naval wireless telegraphy signalling with British possessions abroad no hindrance would be experienced if the stations abroad were not on the Marconi system; as previously stated practically all systems can intercommunicate. If the commercial stations abroad are under the Rules of the Convention their wave lengths will be regulated, and consequently naval wireless signalling will be less interfered with, as the naval wave lengths will not be drawn upon.

963. You infer that it would be beneficial to naval wireless signalling if all commercial stations were under the Rules of the Convention. Do you therefore consider that no commercial stations should be exempted from the Rules?—As regards exempted stations, provided that we maintain the right to exempt stations if and when we require to do so, so that we can use this right in case of congestion of traffic, to try a new system, or for any other purpose, as far as actual naval signalling is concerned it will neither be necessary nor desirable to multiply such stations. The important thing is that we should have a free hand in the matter which is provided for in the Convention.

964. The Convention is to come into force in July, 1908, is it not?—I believe so.

965. Do you attach any importance to Great Britain ratifying the Convention at an early date?—If the Convention is to start under favourable conditions the working details need to be thoroughly gone into before July, 1908. In my opinion the practical success of the Convention depends very largely on the time given to work out these details, and hence the importance of not delaying the ratification.

966. Are you speaking before the Committee on the authority of the Admiralty?—My evidence has been submitted to the Admiralty and they concur in it.

967. They concur in what you have said?—Yes.

Sir William Holland.

968. You told us, I think, that from Mr Marconi the Navy had received no new ideas or suggestions since December, 1905, was it not so?—December, 1905—Yes.

969. You have no reason to suppose, have you, that Mr. Marconi has withheld ideas or suggestions which have occurred to him?—No, I have not.

970. It is not always easy for inventors to manufacture new ideas; the supply may not always be "on top"?—I should say from my experience that the supply is "on top" every day.

971. Then you suggest that some of these ideas are being withheld?—I have no knowledge; of course my answer to that question

Sir William Holland—continued.

would be that if the Marconi Company have been carrying out experiments as it was considered they would do, I imagine by the Admiralty Agreement—I think undoubtedly a year could not elapse without very large improvements having taken place in construction and other matters relating to wireless telegraphy.

Mr. Gwynn.

972. I began to ask Colonel Daniell some questions which he referred back to a technical witness, and if I may I will put them to you. The first is with regard to the amount of power that is used. The Convention provides, I think, that a maximum of one kilowatt should be employed—that is about one-third of a horsepower—for distances not exceeding 300 kilometres?—Yes.

973. Would not that be an unnecessary amount of power to employ for communicating between a ship in the Channel and a station on the English coast, say at a distance of about 30 or 50 miles?—One must necessarily have some power, and the working of wireless telegraphy can be controlled although you have one kilowatt power at your disposal. If you want to communicate with a station a short distance away you use a smaller amount of power, especially for commercial work. I should think that the efficiency of working would always be considered—that is to say, that the smallest amount of power would be used for communicating with the station you were calling.

974. But is it not possible that a more developed system, having a more sensitive receiver, might receive a message with a less degree of power, whereas in the case of a less developed and less competent system, a larger amount of power would have to be used to produce the same effect?—That is so to a certain extent.

975. That is to say, the use of an inferior system may involve the employment of greater power—unnecessary power—and to that extent involve some disturbance of the surrounding traffic, may it not?—It is necessary to state, in every condition of wireless signalling a number of facts besides the power that you are using, that is to say, the distance of the stations transmitting and receiving, the aerial, the wave length you are going to use, because the wave length may be entirely unsuitable for the purpose—accordingly it is only possible in laying down rules for communication to state a definite amount of energy for a certain wave length. Some apparatus may be able to deal more efficiently than others with that power, but from the very nature of the wave length selected, I refer to the 300 metres wave length, a station must be fairly efficient to be able to communicate her distance with one kilowatt. It is not a question of a ship being able to interfere because she has not good apparatus, she cannot, unless her instruments are well attuned or well adjusted with one kilowatt and at 300 metres, communicate efficiently.

976. With the general signalling?—Yes.

977. Mr. Babington Smith said that certain attempts

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[Continued.]

Mr. Gwynn—continued.

attempts have been made to devise methods of directing the waves, sending the greatest energy in one particular direction, and that the success had only been moderate. Does that coincide with your experience, or have you ever known a case in which a shore station has been able to determine the position, the compass-bearing of a ship at sea that was out of sight?—I have no knowledge of the shore station work in that direction, commercially.

978. Then if I put to you the question: Did Mr. Marconi by using methods of his own accurately determine the compass-bearing of a ship which was out of sight? Would you deny the fact or would you simply say you do not know?—No. As I have said in my evidence, previous to Mr. Marconi's demonstration, we had ourselves in the Navy carried out direction experiments.

979. And had they succeeded—had you been able to determine the compass-bearing of a ship that was out of sight?—We were able to determine the direction in which the wireless message was coming under certain conditions.

Mr. Arthur Lee.

980. I think you said on that point in your main evidence that this new method had been reported by Lieutenant Ryan. I understood that to mean that he was acquainted with Mr. Marconi's system and reported it. Do you mean to say that he had invented it or suggested it?—Yes, that he had entirely suggested it without any knowledge of any direction experiments carried out by Mr. Marconi.

Chairman.

981. You really meant that he suggested it, did not you?—He was in the Mediterranean at the time and he forwarded a report to the Admiralty, in which he gave an account of his direction experiments.

Mr. Arthur Lee.

982. So that what is due to this invention, whatever it is, is not due entirely to the Marconi Company?—I mean to say that we had it reported to the Admiralty before we had any knowledge of "direction" from any other source.

Mr. Gwynn.

983. On the general question of efficiency, would you say that there was any probable gain to be made from the naval point of view by adhering to the present arrangement—that is to say, refusing to ratify the Convention in the hope that in that way the Marconi Company might practically maintain its predominant position in wireless telegraphy, and that therefore the Navy might have only one Company to deal with, or might have only one control to deal with?—Personally, the rules of the Convention, to my mind, will be much more satisfactory than any kind of Agreement that we at present have with the Marconi Company. The Marconi Company's stations do not work in conformity with any Admiralty system, and as I have said in my evidence there is a

Mr. Gwynn—continued.

considerable amount of interference between the shore stations and naval signalling at present.

Sir Gilbert Parker.

984. I asked Mr. Babington Smith at a previous sitting concerning the distance between stations using the same wave lengths—how great a distance there must be between stations using the same wave lengths in order to avoid interference. He said in reply it was a technical question or more for the technical expert: Could you suggest an approximate distance between two stations using the same wave length which would avoid interference?—I understood from reading Mr. Babington Smith's evidence, that he did mention some distance as regards ships using different wave lengths—not the same wave length. Is that the question you wish me to answer—177? May I read the question?

985. Yes?—"Can you give us any idea of the distance necessary for two stations to operate with different wave lengths in the same district?" Mr. Babington Smith's answer is: "The precise distance I would rather, if I may, leave to the technical witnesses to state, but I think I should not be far wrong in saying that two stations using different wave lengths at present ought to be probably 50 miles from each other to arrive at a right conclusion."

986. Yes; that was the question I asked, and you substantiate that reply?—I concur in it.

987. There is another question with regard to exempted stations: Is there any limit in the Convention put upon the number of exempted stations which Great Britain might establish in her territory?—I have not really any very great knowledge of the Convention, but I do not remember any condition stating the exact number or that we are limited in any way. By my evidence I say that we have the right to exempt stations if and when required.

Mr. Adkins.

988. With regard to these exempted stations I understood you to say that the power reserved by Great Britain of having exempted stations was in your opinion valuable, but need not be used frequently or in many places?—That is so.

989. You remember that that is a power given on condition that there shall be open on its territory one or more stations subject to the obligations of Article III., and providing for the radiotelegraphic service in the region served by the exempted stations, in such a manner as to satisfy the requirements of public correspondence. In your judgment has the compulsory creation of these substituted stations seriously impaired the value of the power obtained by Great Britain to exempt stations?—No, I should say it certainly has not.

990. In your opinion, as an expert in radiotelegraphy, an exempted station would still be valuable although there would be this substituted station under the section?—One would have erected exempted stations with a special object. Personally, as I have stated, from the naval point

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[Continued.]

Mr Adkins—continued.

point of view we should like the exempted stations to be as few as possible; if we therefore erect an exempted station I imagine it must be because we have to do it for some very good reason, in which case another station under the Rules of the Convention would be put up to do that one's duty if that station had previously been doing commercial work.

991. We have seen from the Convention that certain wave lengths—those between 600 metres and 1,600 metres—are reserved practically for Admiralty purposes?—That is so.

992. Would the fact that wave lengths of that definite character are reserved for Admiralty purposes lead to any disadvantage in putting any hypothetical enemy on inquiry if a wave length of such character were received by their apparatus?—I think not. The method of measuring wave lengths is so simple that there is no difficulty in finding out what wave lengths various people are using.

993. So that to allocate special wave lengths for naval purposes does not in your opinion constitute a danger?—I do not think so.

994. You referred to the advantage of Great Britain adhering to the Convention. Is not that specially with reference to the crowded waters of the Channel?—Yes.

995. Are you of opinion that it is an advantage in other parts of the world where conditions are different, or only in the Channel?—In other parts of the world to a less degree; I take the most startling.

996. Although that is the most startling, the same argument applies appreciably, though not so markedly to other parts of the Empire?—Yes.

Mr. Arthur Lee.

997. I should like to follow up a point that I think Sir Gilbert Parker raised with regard to the possibility of having two stations serving the same region. You referred to Mr. Babington Smith's evidence, and concurred in it, where he said it was necessary for two stations operating different wave lengths in the same district to be probably 50 miles apart?—I said that it was desirable.

998. Ought to be?—Yes.

999. I presume if they were operating the same wave lengths there would be some interference, would there not?—Certainly; yes, that is so.

1000. Then I do not quite see how you reconcile that statement of yours—you as a technical expert—with Colonel Daniell's statement about a station like Gibraltar, that there might be two or even three stations working simultaneously?—I quite follow.

1001. Do you concur in his statement?—It is merely a matter of whether one is treating this from a naval point of view or from a commercial point of view, or from both.

1002. From the purely wireless telegraphy point of view is it possible to work two stations or three stations simultaneously in a restricted area like Gibraltar without their seriously interfering with each other?—I see no reason at all why they should not work altogether.

Mr. Arthur Lee—continued.

1003. Why then do you say that it is desirable that they should be 50 miles apart?—Because they are on the same wave length or the wave lengths differ to such a small extent that it would be certainly desirable at the outset to have the stations well separate. It is really a question of how efficient I am or you are.

1004. As an operator?—Not only as an operator but as a skilled wireless telegraphist. I am able to work a station in close proximity to another station without its interfering with that other system or allowing that other system to interfere with me; but if I was drawing up rules for new men working the apparatus which a large number of ships were to be fitted with, I should think it very unwise to place two stations closer together than that. I must limit possible interference.

1005. Then if you have sufficiently expert wireless telegraphists you think that there is no reason why stations should not be put alongside each other?—I think that in time that will be so, when the operators become more efficient and also when the wireless apparatuses get fuller development; then the stations will be able to be placed much closer together; but my opinion with the different systems of wireless telegraphy instruments at present on the market I do not think it would be wise to place the stations closer together than the distance named, or almost the limit of possible interference.

1006. Then you would not think it desirable that there should be more than one installation at a point like Gibraltar?—Is this for naval purposes, may I ask?

1007. Yes, I will put it in that way if you like; I mean that there should not be an exempted naval station for naval purposes and a non-exempted station for public purposes at the same point?—Well, that again leads into another point. Is it from the point of view of interfering with the Navy or from the point of view of the Navy interfering with it?

1008. Both; we have to consider both under the Convention?—Then it is desirable at present that there should not be two stations in so small an area.

1009. That is what I wanted to get at. It is desirable that there should not be two stations under existing conditions?—Yes.

Sir Gilbert Parker.

1010. It would not be undesirable, I take it if there were another station on the peninsula 50 miles from that station?—It all depends upon the size of the place. If there is room for 50 miles apart, then there is no reason why there should not be another station. At the outset I think it would be unwise to place another station at Gibraltar to do commercial work. There might be a point raised as to the question of naval stations. May I explain that it will depend to a very great extent on the differences of wave lengths that are to be used as to whether there will be interference or not, so that it might be quite possible for a naval station at Gibraltar to be erected that would have a wave length of (let us suppose) 10,000 metres; in such a case there would be, I imagine

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[Continued.]

Sir Gilbert Parker—continued.

I imagine, very little or no effect on other stations in the vicinity, if those other stations raised 300 metres. At present we have two naval stations at Gibraltar, one an experimental station and one a non-experimental station. It is beyond my province to talk of these naval stations or their functions, and it must not be taken that my evidence has anything to do with naval stations being erected when I say that it would be preferable not to erect stations under the Convention.

1011. I ask you, from the purely technical point of view, whether the two could work together from the wireless telegraphy standpoint?—Then you must tell me what wave lengths they are going to use. If they are going to use wave lengths which are close together then it is undesirable that they should exist.

1012. That is what I wanted to get at. Then I wish to ask you a question on this point merely as a technical expert. We were discussing (I do not know whether you were present at the time) this German station at Nauén, which is to conduct experiments with ships out in the Atlantic to the West of Ireland?—Yes.

1013. Would those experiments interfere with the ordinary work at our stations, say at Poldhu or Brow Head and in the English Channel?—One ought not to take Poldhu and Nauén in connection with stations for ordinary work.

1014. Will you tell me why not?—It would not interfere with stations that would come under the heading of the Convention.

1015. That is to say it is possible for the waves from the German station to pass over some territory—pass over the actual stations that are working, without interfering with them?—Yes, without in any way interfering with them.

Chairman.

1016. And without those stations receiving the message, you mean?—Without those stations receiving the message provided the wave-length was proper. I am not in a position to say definitely what is the wave-length at Nauén, although I have made measurements personally, they may (being an experimental station) alter their wave-length daily; but I am in a position to say this, that it is almost impossible for a large power station, or it is impracticable for a large power station, to send out a short wave length; therefore I should say that this station at Nauén if she is going to communicate with ships in the Atlantic cannot possibly interfere with ship to shore communication under the Convention.

1017. Then I take it under the Convention—particularly under those two provisions by which more power than is necessary must not be used, and that no unnecessary interference must be permitted—that any country in Europe will be permitted within the rules of the Convention to establish high power stations to communicate with the Atlantic or with their ships in other parts of the world?—I do not call that “communication.” Is not “communication” a question and answer?

1018. I should have thought not necessarily?—Not necessarily?

1019. In the strict legal sense certainly not?—“Communication” is not question and

Chairman—continued.

answer! If it is considered necessary to erect large power stations for the purpose of sending messages to ships in the Atlantic, then I see no reason why such stations should not be established. I imagine that the point of long distance stations is to communicate to long distances.

1020. Have you any idea what this German station is for?—I do not know; I imagined that it was simply an experimental station.

1021. I understood that one of the great advantages we should receive under this Convention if ratified was that it would prevent other powers putting up stations on their own territory, and so would throw the business into the hands of our stations which have the superior geographical position; but I gather from what you have said just now that other Powers would be able to evade that benefit to us by putting up long-distance stations of their own and working over our heads?—Not at all. You must have entirely misunderstood me if I gave you that impression. The reason for more communication coming to our shores is, that the ships have got to report to the nearest shore station; it is not a matter of the shore station sending to the ship; in nearly all cases of communications between ship and shore stations, it is the ship that calls up the shore station, and it is no benefit to have a large power station for this work.

1022. From the ship?—From the ship.

1023. Of course, you are aware that on Atlantic liners long-distance messages are received, so that they are in touch the whole way across—in fact, that they actually publish a daily newspaper with messages coming in some cases from distances up to 2,000 miles?—I am quite aware of that. That is of no advantage to my mind to the ship reporting messages to the shore station; that is purely a news point of view.

1024. Yes, but it would enable a service of German ships—say the North German Lloyd—to pass the message through the German station rather than through our station?—If the German station wishes to send press news every day I think there is no reason why they should not do it; nor do I think that it would in any way affect the British small power stations (the number of them) if they did do so.

1025. There might be cases, however, in a time when there was strained relations or anything of that sort with any given Power, when it might be an immense advantage to them to be able to communicate with their own ships without their messages going through our hands?—I do not say that would not be so. Of course I might have added that. We have been rather dealing with large power stations and small power stations indiscriminately. The large power stations with wave lengths of over 1,600 metres are not dealt with in the Convention, but they were necessary to discuss because it depended upon whether the number of small power stations would be affected due to the erection of large ones.

1026. You think they would not be?—I think they would not.

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Chairman—continued.

1027. One other question only. You said it was very important we should ratify now because the working details would have to be examined very carefully before July, 1908?—Yes.

1028. Is there any possibility of our being able to alter any of the working details as provided in the Regulations in case we do not consider they are suitable?—Personally, I am not an expert on this Convention, but I imagine that we have a free hand to draw up the rules and regulations on the general lines laid down in the Convention and Rules.

1029. They are rather more than "general lines," are they not; are not the provisions of the Convention very precise rules?—I do not think the rules deal with a large number of technical points which must necessarily be gone into before the Convention comes into force if we are to obtain the full benefit of it, Sir.

1030. That is all you mean—then you do not suggest that the regulations which are laid down require further modifying, but merely that there are points outside them?—Exactly. The Government has to deal with seeing these rules and regulations carried out, and the more time that is given to the working out of the details connected with these regulations the better will it be for the Convention when it is instituted.

1031. You can point to nothing in the Regulations that have been adopted by the Convention that would be impracticable from a technical point of view, can you?—Perhaps you have not examined them sufficiently to enable you to say?—I have looked through them but not very carefully.

1032. Then I will not press the question further, it requires very careful examination?—It certainly does.

Chairman.

1033. I infer from an answer which you gave to Mr. Lee that a high pressure station, a long distance station, is non-interchangeable with a small short distance station, uncommunicable?—That is not the case. They can communicate between one another, but it would be very inefficient communication. As I have stated previously the idea is to use the minimum amount of power for sending a message and to erect a station with a special object—if it is to do short distance work to erect the short distance station; if it is to do the long distance work to use large power; but there is no reason why the large power station and the small power station should not be able to communicate with one another.

1034. But on the other hand I gather that the long distance messages sent from a high pressure station could avoid intermediate stations?—That is so.

1035. By throwing them over the heads of the other stations?—Yes; one has to adjust the instrument so that it will take in a long wave, which is a different adjustment to what it would be if you were going to take in a short wave.

1036. So that long distance messages need not necessarily cause interference or confusion with the intermediate stations?—No, not at all.

Mr. Sydney Buxton.

1037. Take this particular station to which Mr. Lee has referred. I understood you to say that in order to project a message to the distance you are thinking of would require a very long wave length?—That is so.

1038. That I take it, would be received by the ship with which it desired to communicate. Could the ship itself reply?—The ship could only reply on its shorter wave length.

1039. With those other stations between, the reply perhaps might not be received, is that so?—In the case of a long distance station signalling to a short distance station they would have to interchange their messages on different wave lengths. A ship with a shorter wave length would not try to do so if she were outside the range, of course.

1040. This high power station could communicate with the ship, but the ship with the short wave length could not necessarily send a reply?—No, not necessarily.

1041. Is it not a fact that the messages from the ship to shore are something like 20 to 30 times as many as the messages from shore to ship?—I should think they were quite so, but I do not know the number.

1042. Practically the commercial business of wireless telegraphy is nearly all from ship to shore, and not from shore to ship, is it not?—That is so.

1043. I take it that without the Convention this particular station and others of the same character could be erected, or they could be erected with the Convention; but without the Convention there would be no control whatever of the working of them; is that so?—Are we talking of a large power station?

1044. I am speaking of the one that Mr. Lee was referring to?—I do not think that is allowed for in the Convention.

1045. Because the messages are shore to shore messages?—Because the wave length is over 1,600 metres.

1046. You mean that it is outside the range?—Yes.

1047. I should like to put to you one point only about the Marconi system. I understood you to say that while the Admiralty adopted the Marconi system some years ago, during the last year or two you have not received any assistance from the Marconi Company in the way of improvements?—That is so.

1048. Therefore, if the agreement between the Marconi Company and the Admiralty came to an end you would not be materially injured at the Admiralty?—We should not be injured; no.

Mr. Arthur Lee.

1049. Could you say what the longest distance is that a ship has been able to send a message?—Does this question refer to a naval ship?

1050. Any kind of ship?—I do not think I am prepared to say. I am not at liberty to say what Admiralty ships can do or cannot do.

1051. I presume the distance to which a ship can send depends very largely upon the power expended?—That is so.

1052. And

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[Continued.]

Mr. Arthur Lee—continued.

1052. And I suppose there is no technical reason why if a ship is large enough and can give a sufficient amount of power it should not be able to reply to a long distance station efficiently?—She could not reply if she was bound to use one of the short wave lengths.

1053. But if she was allowed to use a long wave length she could?—Yes, on the long wave length; the ship could reply; and, of course, if she is outside the Convention she can do so.

1054. If she is in the Convention she is confined to the 600 metres?—300 metres.

1055. Between 300 and 600 is it not?—I think such ships are not bound to have wave lengths other than 300 metres.

Mr. Adkins.

1056. You were telling us that in your opinion where the wave lengths of two stations were the same, confusion would be best avoided by their being further apart—50 miles, I think you mentioned?—Oh, yes.

1057. In the case of a British possession like Gibraltar, the small area of that rather points to

Mr. Adkins—continued.

the undesirability in the present state of the science of having more than one station in that small area, does it not?—Yes.

1058. Supposing some one outside that area decided to put up another station, and that station was placed upon Spanish territory adjacent to Gibraltar, and we did not adhere to the Convention, what would be likely to happen?—The Spanish station being how far away?

1059. I am assuming that it is placed as near to our station as the geography of Spain admits of its being placed, and that we did not adhere to the Convention?—Generally.

1060. Generally. I put to you two stations—the one at Gibraltar—that station could be interfered with, by some Spanish station, under the Convention, another station comparatively near, could it not?—That is so.

1061. Therefore the difficulty of the two stations leading to confusion is a difficulty which is not increased in the case of Gibraltar by our adhering to the Convention?—It is not increased.

Tuesday, 9th April 1907.

MEMBERS PRESENT.

Mr. Sydney Buxton.
Sir John Dickson-Poynder.
Mr. Gwynn.

Mr. Lambert.
Mr. Arthur Lee.

Sir JOHN DICKSON-POYNDER, IN THE CHAIR.

Lieutenant F. G. LORING, R.N., called in; and Examined.

Chairman.

1062. You are an officer of the Royal Navy, and you are in charge of the Admiralty Shore Wireless Telegraph stations?—That is so.

1063. You were one of the delegates at the International Conference at Berlin?—I was.

1064. How long have you held your present appointment?—I have held this appointment since October 1902.

1065. What was your previous experience?—Previous to that I had nearly two years' experience of wireless telegraphy in a fleet at sea.

1066. On what points are you prepared to give evidence?—I am prepared, with the authority of the Board of Admiralty, to give evidence on the probable effect of the Convention on the existing condition of wireless traffic in the neighbourhood of the United Kingdom, and also on any points in connection with the general practice of wireless telegraphy as distinct from questions which require a very high standard of scientific and technical knowledge.

1067. Will you state the general position as regards the progress of wireless telegraphy on the coasts of the United Kingdom?—Generally speaking, I find the number of wireless telegraph stations and the amount of signalling done by all stations has increased recently, and especially so during the last 12 or 18 months. The range of stations generally has also increased. The efficient prevention of interference between distinctly separate wave lengths becomes more practical every day, and also more essential to good communication.

1068. To what cause do you attribute the increase of stations?—The increase in the number of stations is due to the rise of other more or less powerful combinations working in competition with the Marconi Company.

1069. Why should the range of stations have increased?—The increase in the range of stations is due to two reasons. Firstly, the increase of uncontrolled working—which leads to the installation of more power in order to get messages through in spite of interference—and secondly, to scientific progress which leads to more efficient application of such power as may be available.

1070. What organisation exists at present?—

Chairman—continued.

At the present moment there is no general organisation of wireless telegraphy, and much trouble is caused over the whole of the southern part of England and the Channel by interference which might often be avoided were there any machinery for general regulation in existence.

1071. Have the Marconi Company got a very complete organisation?—The organisation of the Marconi Company may be efficient for its own purposes, but it extends no further than its own very definite boundaries, and the Company moreover appears to have great and increasing difficulties to contend with in overcoming interference by organisations outside their own.

1072. Now what are your reasons for advocating an international agreement?—An all British monopoly of wireless telegraphy throughout the world by means of the organisation of the Marconi Company is an absolute impossibility, and is open to other objections even if it were possible. I consider that from a technical and practical point of view an international agreement is most desirable, if not imperative, and that the present moment is particularly favourable to this country.

1073. Why do you say the present moment is particularly favourable?—At the present moment far the greater part of the ocean commercial wireless traffic carried on in the United Kingdom and North of Europe is in the hands of the Associated Marconi Companies, which are controlled, I believe, by the present British Company. This is mainly owing to the fact that at present (as already explained by other witnesses) no stations except Marconi stations have been licensed on the south coasts of England and Ireland, but it seems to me almost certain that these companies (that is the Marconi companies) are not likely to improve on their present position of comparative monopoly or even to retain it under the conditions of non-intercommunication which they may impose, and that therefore it is better and wiser for this country, which is the country chiefly concerned in wireless telegraphy, to join an international arrangement before other organisations become of sufficient importance to further complicate an already difficult problem.

1074. What

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[Continued.]

Chairman—continued.

1074. What in your opinion would have happened had there been no Convention proposed at all?—I consider that even had there been no question of a Convention the restrictions imposed by the Marconi Company on their customers would soon compel the latter to take steps for the erection of wireless stations which would not be under the ban of non-intercommunication. As far as this country is concerned, it is probable we should in any case have been desirous to presently license stations other than the Marconi Company's on the south coast owing to the progress which is being made daily in the prevention of interference and the rise of other systems which it is desirable to encourage.

1075. Where does the chief difficulty of wireless telegraphy arise?—The chief difficulty with regard to wireless telegraphy arises with the ships. There is little difficulty in placing shore stations comparatively close to one another on the coast which will not interfere with each other under the supervision which we can impose by the terms of their licence. It is the ships with which these stations would work that give rise to nearly all the trouble of intercommunication and these moving stations, which, especially in the case of stations moving in British waters belong to different nationalities, cannot be supervised except through an international arrangement.

1076. Then you imply that, had there been no Convention the situation would have grown continually more acute?—Yes, exactly.

1077. Owing to interference between ship stations?—Owing to interference between ship stations.

1078. Will you tell the Committee what promise your naval experience gives of a favourable result of international wireless telegraphy?—My own practical experience of wireless telegraphy, both in fleets and by observation of commercial work, does not permit me to conceal from myself for a moment the difficulties which confront international work at the outset. These difficulties can, however, be overcome by experience and organisation, and if international inter-communication must come, it is better that it should come at once. I admit the difficulties of inter-communication, but it is not by any means impossible. Naval experience in the practical working of wireless telegraphy as a technical problem has been on a scale which is far larger than any commercial organisation is likely to have to contend with. It is not uncommon to have to deal with fleets of 30 or 40 ships all desirous of communicating by means of wireless telegraphy and all within range of one another. We find that we can work efficiently under such conditions, and naval experience therefore justifies the conclusion that with experience and proper organisation the control of a group of three or four ships and a shore station should not be impossible; it is perfectly practicable in spite of the question of the difference of nationality amongst the operators.

1079. Will you be good enough to consider how the Convention would affect the present situation on any definite point you may suggest?—I should like to take in detail how the Con-

Chairman—continued.

vention affects existing naval stations, existing commercial stations (in a general sense), existing power stations (long distance), the Marconi Company in particular, the number of shore stations that are necessary and how close these can be placed to each other, and finally a general idea of the basis on which the international regulations were drawn up, with particular reference to the protection of British interests by technical regulations.

1080. How would the Convention affect naval shore stations?—The effect of the Convention on naval shore stations cannot be otherwise than beneficial. Under the Convention we not only retain that absolute freedom of action which we now possess, but we obtain in addition the use of a large range of wave lengths which are to be internationally denied to commerce.

1081. How will it affect commercial shore stations?—It is somewhat difficult to consider this question apart from the position of the Marconi Company, since they possess the only stations at present in this country at which any considerable traffic is done. I think, however, the effect of the Convention must in any case be beneficial, even to Marconi stations. I have a practical proof of that, because since the Marconi Company took to working in friendship with Scheveningen, my operators in that neighbourhood report a great falling off in the trouble of interference—that is, owing to the friendly relations, or comparatively friendly relations—now existing between the Marconi Company and the Scheveningen station.

Mr. Gwynn.

1082. I did not quite catch that?—I say that the Convention must be favourable as a whole, because I have this experience, because my operators at Dover and at Felixstowe, who see all the interference that is going on, say that since the North Foreland and Scheveningen stations and the ships and the Flushing boats have worked on better terms, the amount of interference is very much less than it was.

1083. I do not quite understand what you mean by "better terms." Do you mean that there was previously dispute owing to the Marconi non-intercommunication?—It is not so very long ago—as I have knowledge—that the operators used to use very strong language between the North Foreland and the Flushing boats.

Mr. Arthur Lee.

1084. Is that wireless language?—Yes, wireless language; all that has stopped in recent months.

Chairman.

1085. Is that speaking of communicating with different systems?—Oh, yes; and there is no reason why the Flushing boats should not communicate perfectly well with the North Foreland if they wish.

1086. Is it on account of messages being given and taken between two different systems?—No, it

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[Continued.]

Chairman—continued

it is because one station (the Flushing boat perhaps), determines not to interfere with another (North Foreland for instance).

1087. Are they both Marconi stations?—No.

Mr. Lambert.

1088. What is the North Foreland system?—Marconi.

Chairman.

1089. So that there is intercommunication now?—I will not say that there is intercommunication, but there is a very much better understanding existing between the two systems than there was six months ago.

Mr. Sydney Buxton.

1090. Is that under the agreement come to between the Marconi Company and the Dutch Government that they will accept intercommunication if necessary?—I suppose so. I am only telling you a thing that has come up recently within my knowledge.

1091. If two stations, instead of trying to cut each other's throats, try to work in harmony, the interference is very much reduced?—That is it.

1092. And if the Marconi Company accepted the position and desired to work in a friendly way, interference all round would be very much diminished. Is that the point?—I am perfectly certain of that.

Mr. Gwynn.

1093. I would like to be quite clear. Has this result been obtained as a cause of the Marconi Company abandoning its principle of non-intercommunication?—I am not prepared to say that. I can only say that this result has occurred owing to more friendly relations apparently existing between the stations at North Foreland and Scheveningen.

Chairman.

1094. Are you prepared to say that the Marconi Company has come to an arrangement to intercommunicate with this Dutch Company?—No, I should not like to say that certainly. This is an extract from "Notification No. 1" of the International Radiotelegraphic Bureau dated Berne, February 1st, 1907: "(3) Commencing from 12th January 1907 the Netherlands Administration has granted a licence, the text of which will be reproduced in the next number of the 'Journal Télégraphique,' to the Netherlands - America Navigation Company, 'Holland America Line' at Rotterdam, for the installation and utilisation of wireless ship stations on board the following ships:—'Nieuw Amsterdam,' 'Noordam,' 'Potsdam,' 'Ryndam,' 'Statendam.' These stations are worked by the Marconi Company of Brussels, and, in accordance with the provisions of the above-mentioned licence, communicate with the Netherlands stations at Scheveningen. Other witnesses have stated that the Scheveningen station can take messages from the Marconi Company's ships. There is no question about that. I have not actually intercepted or known of any messages being exchanged between the North Foreland

Chairman—continued.

and the Flushing boats. We know about Scheveningen. I cannot be certain about the North Foreland, but I know that since friendly relations have been come to between the Marconi Company and the Scheveningen station the interference in the region of the North Foreland has greatly decreased. We know that the Marconi Company have accepted intercommunication at Scheveningen.

Mr. Gwynn.

1095. They have accepted it?—Yes, they have accepted it. We have it officially.

Chairman.

1096. As the practice of intercommunication has developed, do I rightly understand you to say that the language of the respective operators has been modified?—Exactly so, Sir.

1097. Do you think that the Convention will necessarily mean an increase of Marconi Stations?—Unless the Convention has the effect of very greatly increasing the number of ships fitted with wireless apparatus, I consider that the shore stations in existence are ample to cope with the telegraphic traffic. There may be, perhaps, some question with regard to Brow Head, Lizard, and Malin Head, on which points the big liners' tracks converge.

1098. Do you have opportunities of observing the working of wireless telegraphy?—Yes, I have.

1099. What sort of signals are mostly made?—My experience shows that the great preponderance of signalling between ships and shore (except Brow Head and Lizard) at present consist chiefly of conversational talks between operators, routine signals and innumerable repetitions due to the result of interference. There are comparatively few *bonâ-fide* telegrams, at any rate east of the Lizard. At Brow Head and the Lizard there are a very considerable proportion of real telegrams, but at all other stations the most of the work—is unnecessary work: it is conversational talk between operators; it is routine signals, and it is repetitious; and the amount of *bonâ-fide* telegraphic traffic that passes is not alarming.

Mr. Arthur Lee.

1100. May I ask, is there no supervision over the operators? Are they encouraged to talk and use bad language to each other?—There is no general supervision except so far as the Marconi Company's operators are concerned.

1101. But your operators?—The naval operators are outside everything I am talking about now.

1102. Whose operators are they?—There are the operators on board the Flushing boats—that is one case—they speak very plainly to each other.

1103. Would it not be very important that in any Convention there should be a clause restraining unnecessary conversation?—Yes, we have it.

1104. Can

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[Continued.]

Chairman.

1104. Can you explain to the Committee how the Convention would improve this state of affairs?—The Convention, if properly applied, must tend to ameliorate the situation, and must aid the handling of *bonâ fide* telegrams by decreasing interference, curtailing conversations between operators, and keeping experimental working within due limits.

1105. What Article is it that relates to that?—Unnecessary signalling.—Article V. of the Regulations, page 89: "The stations indicated in Article 1 of the Convention are prohibited from exchanging superfluous signals and words. Trials and practice are only permitted at these stations, in so far as they do not interfere with the service of other stations."

1106. Supposing it was found that in any particular locality there was too much traffic for one station to undertake, could you erect another without undue interference?—At Brow Head, Lizard, and perhaps Malin Head, there are times when *bonâ fide* wireless traffic is very considerable, and it is possible that a large increase in the number of ships desirous of communicating would decrease the general efficiency of the service by causing congestion. I see no technical reason, however, why extra stations under proper supervision should not be erected to deal with this extra traffic which would not interfere with the existing stations, more especially if the exemption clauses of the Protocol are taken full advantage of.

1107. Do you think that the rejection or otherwise of the Convention by Great Britain would affect the situation?—I think that the Convention as a whole will be beneficial towards existing commercial stations, because it would tend to decrease interference, stop unnecessary signalling and limit the number of stations, whilst retaining the larger proportion of the wireless traffic for our own coast stations on the shores of the United Kingdom. The rejection of the Convention by Great Britain would have exactly the opposite effect, and wireless telegraphy in this country, our shipping interests in general, and the Marconi Company in particular would be direct losers.

Mr. Arthur Lee.

1108. What about naval interest; does your answer cover that?—I referred to naval stations in particular in answer to another question: I hold that the Convention is wholly beneficial to naval stations, and it cannot be anything but beneficial.

Chairman.

1109. Will you say how the Convention affects large power stations?—There are very few of these stations in existence at present in Europe, but there are two, if not three stations, which send out press messages at fixed times, namely, Poldhu in England; Nauen, or Norddeich, in Germany—I am not quite sure which, and a French station which I believe is situated at the Eiffel Tower. The Convention does not take any special note of such stations, but when wireless telegraphy has become the subject of international agreement, then a mutual agreement can be come to

Chairman—continued.

with regard to wave length and hours of working and would be beneficial to all concerned, in view of the fact that both the number of these stations and the range of action is increasing. Poldhu, Nauen, and the recently destroyed station of Machrihanish in Scotland, all have a range of over 1,000 miles. I am not certain about the range of the French station, except that it is a powerful station. With special reference to Nauen, about which some questions have been asked, I should like to state that this station communicates with ships of the Mercantile Marine. That comes therefore under the Convention by virtue of Articles 1 and 2 of the Convention. "The high contracting parties undertake to apply the provisions of the present Convention at all radiotelegraph stations—coast stations and ship stations—open for the service of public correspondence between the land and ships at sea," and Article 2 is: "The term 'coast station' means any radiotelegraph station which is established on land or on board a ship permanently moored, and which is used for the exchange of correspondence with ships at sea."

Mr. Arthur Lee.

1110. I see in Article 2 they leave out the word "public"; they simply say, "correspondence." The first Article says, "public correspondence." Is there any significance in that difference?—I am not quite certain about that; it never appeared to me to have anything in it. It is probably a question of translation.

Mr. Gwynn.

1111. Arising out of your answer, you say that this Nauen station would come under Articles 1 and 2, would that mean that the Nauen station could only use wave lengths of 300 metres?—Above 1,600 or below 600 metres. They could use above 1,600.

Chairman.

1112. Now have you considered the effect of the Convention on the Marconi Company in particular?—Might I just add one more thing, Sir? I wanted just to explain a point about Nauen. Several questions were asked about it the other day. If a different wave length was used, Nauen would not interfere with Poldhu, and still less with short distance stations in this country. The obligation that ships are as a rule to communicate with the nearest coast station will prevent ships from communicating with Nauen from mid-Atlantic or when near our stations, even if they were physically able to do so. Moreover ships may not use more than one kilowatt if any coast station is within 300 kilometres. In fact, Nauen can, under the Convention, carry on a one-sided communication with ships; but that would do us no harm.

Mr. Arthur Lee.

1113. I understand it would do no harm if they used a wave length very different to that at Poldhu, for example?—That is the point as I say

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say. If the Convention is ratified it is a question of mutual arrangement between this country and Germany. It seems to me these power stations as a whole do not come under the law of the Convention; but that is a condition of things that could exist without a Convention. Whether there is a Convention or not it seems to me there is perfect liberty to put up stations.

1114. You mean it may become the subject of subsequent arrangement, but is not provided for in the Convention?—No, it is not provided for in the Convention. It is kept out of it because we really know so very little about these power stations.

Chairman.

1115. We will come now to the Marconi Company. Have you considered the effect of the Convention on the Marconi Company?—I have, both as a delegate to the Conference and for the purpose of this Committee.

1116. Will you state briefly how you consider it will affect their business?—The conclusion I have come to is that the effect on the Company for good or ill depends entirely upon the spirit in which the Company accepts the situation. From the Company's point of view naturally, nothing could be so satisfactory as a world-wide monopoly. This aim they have entirely failed to obtain, and it is not in our power to further assist them even were such a course desirable.

1117. What effect would it have upon the Company if they fully accepted the Convention?—Let us first suppose that they accept the Convention with a *bonâ-fide* intention of forwarding its working in every possible way. I grant that at the first it is possible that the introduction of strange elements (that is other operators) into their well-organised system must cause a certain amount of trouble and confusion, and an increase in the difficulties of working. All who have any practical knowledge of wireless telegraphy will admit that the efficiency of a wireless system depends first and last upon the intelligence and discipline of the operators. The operator question is the main difficulty. I understand that by a judicious "bonus" system the Marconi Company have taught their operators that skill and discipline are questions of self-interest. This arrangement is not contemplated internationally, but the efficiency and discipline of the operators are secured by the pains and penalties which obtain under the licence. At the same time I should like to remark that in the Navy, given in the first instance a thoroughly practical operator—a well-trained man—we find that such a man has no great difficulty in falling directly in with an organisation in the working of which he is not actually practised himself. This question is, however, one which the Marconi Company have to contemplate in working with the convention. On the other hand what do they stand to gain? Firstly, increase, if anything, of the traffic, for the simple reason that there will be no object in multiplying the number of wireless stations if those already in existence can cope with an increase of the work, as I fully anticipate they will be able to do, in most cases. Secondly, a decrease of interference

Chairman—continued.

through the Regulations of the Convention. Thirdly, if the Company accepted inter-communication there would not seem to be any good reason for the removal of their apparatus from foreign and other ships. It is even probable that the number of ships fitted with their apparatus may be increased since the refusal of the Companies to accept inter-communication must have often worked adversely to their expansion, especially in foreign countries.

1118. Now, in the event of Great Britain standing out of the Convention what would be the result in your view?—It now Great Britain stood out of the Convention, I consider that the situation in the Channel would become very acute and very detrimental to the business of the Marconi Company. The Marconi Company refusing inter-communication would lose, presumably, the whole of their foreign shipping, and it is to be noted that of about 70 ships fitted which ply in the waters of Northern Europe, about 40 carry a foreign flag (I am not absolutely certain about the numbers; no doubt the Marconi Company will correct me if I am wrong). Stations would be erected on the French and other coasts, and we ourselves would probably licence the erection of stations before long (licences by the way which have been only held over temporarily) which would compete with the Marconi Company's stations, since shipowners could hardly be compelled, without very strong reasons, to adopt one particular system in order to communicate with the British coasts. Without powers, which can only be obtained under international agreement, to regulate the traffic, a wireless war resulting in wireless chaos can only be the result of such a situation. By such a war, quite apart from its inconvenience to our mercantile marine and our trade generally, the Marconi Company have everything to lose and nothing to gain. Even the advantageous position they now occupy in the Channel would be a source of weakness to them under such conditions, because their business would fall off through the increasing competition of others, and this in turn would react on their results by causing greater interference than ever with their traffic; their credit as a successful wireless telegraph company would go down, and shipowners would be tempted to try other systems. I consider there are certainly other systems which are technically at least as good as the Marconi Company's, and these systems are only too anxious to obtain an opportunity of forming an organisation which will give equally good results to those obtained by the Marconi Company. Broadly, the result will be that the Marconi Company, by still insisting on its non-intercommunication, which, rightly or wrongly, is undoubtedly an irritating condition, will lose business which must go to build up other organisations that impose no such conditions, and which there is no reason to suppose will show any worse results.

1119. Now if the Marconi Company determine to take up a hostile attitude, what, in your opinion, would be the result?—In this case a third situation might arise, supposing the Convention to be ratified by Great Britain, and the Marconi Company obliged to accept its conditions

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tions under their agreement with the Post Office. In spite of this the Company may remain hostile and imbue their servants and operators with a sense of hostility and opposition. Fortunately, this situation is in our own hands, both as regards the shore stations and ships licensed by us, while diplomatic representation with regard to Marconi ships licensed by foreign governments would probably under such circumstances meet with ready response. Such a condition of things as this would be most deplorable. It could only end in one way, and the chief sufferers would be the operators of the Company who would lose their licenses and means of subsistence under Article VII. of the Regulations.

Mr. Arthur Lee.

1120. Have you any reason to suppose that the Marconi Company are contemplating any action of that kind?—None at all. Those are the three ways in which the Convention could be taken as affecting the Marconi Company.

Chairman.

1121. Now, will you give some account of the number of shore stations necessary for commercial work?—The existing Marconi stations which were originally organised to work on one common wave length are placed at distances rather over 100 miles apart, and the normal range of these stations may be taken as being about 70 miles. Brow Head is an exception as regards both wave length and distance, it has more powerful transmitting plant and its normal range is probably 150 to 200 miles or even more. At present it is working at a wave length of nearly 3,000 feet, and therefore is well clear of adjacent stations, Rosslare and Lizard, which work on wave lengths below 1,500 feet. The general rules which govern the organisation of shore stations are as follows, the stations having an equal range:—(a) No more than the minimum of stations for dealing with the traffic should be permitted; (b) stations on the same wave length should be, strictly speaking, double their normal range apart; they should be, at any rate, outside each other's sphere of action; (c) stations on a second wave length serving the same region (which should not, in my opinion, be permitted if possible to avoid it) should, in addition to restrictions (a) and (b) (as regards each other), be placed as far from stations on the first wave length as may be practicable.

1122. 300 is that?—300 or 600, or any other wave length. I have been talking about stations on one wave length. Now, supposing we add to a system of stations on one wave length stations on a second wave length, the second wave length would presumably serve the same region as the neighbouring stations on the first.

1123. It may be greater or smaller in those cases?—It may be greater or smaller; I am only taking the question from the general point of view; and in addition to being placed at least outside each other's sphere of action, they also should be placed as far as possible apart. As a general principle, all stations should be as far apart as possible. This is not for the purpose of preventing interference between the shore

Chairman—continued.

stations on the first and second wave lengths but to keep their respective radii of action as regard ships as distinct as possible. I have stated before difficulty will only arise through the ships. The shore stations are fixed, and can be placed, in the first instance, at such a distance apart as to avoid mutual interference. The ships are moving stations, and there is always a chance of two ships working on a different wave length getting so close to each other that mutual interference is absolutely unavoidable. I consider that with only one wave length in use the number of stations on the south coast cannot be increased; and I do not consider it desirable to increase the number of stations on the south coast if it can be avoided.

1124. What was the basis on which the International Regulations were drawn up?—It was recognised from the outset that under the circumstances signalling regulations could only be drawn up in general terms, and that they would require alteration and expansion with regard to detail from time to time according to experience gained. The signalling regulations, which meet with Admiralty approval, and, indeed, were practically suggested by the British delegates, are based mainly on British and German naval experience, together with such information as individual delegates had been able to gather from time to time through the observation of commercial work.

1125. What were the particular aims before you as a technical expert?—The aims before the British delegates were as follows:—

(1.) *To keep control of wireless traffic in the Channel in our own hands.* This is obtained mainly through the clauses which place the control of the traffic entirely in the hands of the shore station, and also require communication to be carried out with the nearest shore station. Provided we take advantage of our geographical position and offer shipping a good service there is really very little inducement to foreign countries to erect commercial wireless telegraph stations in our neighbourhood at all.

(2.) *To obtain regulations which will ensure good operators and efficient apparatus.* Articles VI. and VII. of the Regulations cover that:

“VI.—(1.) No ship station may be established or worked by any private enterprise without the authorisation of the Government to whose authority the ship is subject. This authorisation is given by a licence issued by that Government.

(2.) Every ship station which is authorised must satisfy the following conditions:—(a) The system used must be a syntonised system; (b) the speed of transmission and reception must, in normal circumstances, not be less than 12 words a minute, five letters being counted as one word; (c) the power imparted to the radiotelegraphic apparatus must not, in normal circumstances, exceed one kilowatt. Power in excess of one kilowatt may be used if the ship finds it necessary to exchange messages at a distance of more than 300 kilometres from the nearest coast station, or if, by reason of intervening obstacles, communication can only be effected by an increase of power.

(3.) The service of the ship station must be carried on by a telegraphist holding a certificate issued

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[Continued.]

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issued by the Government to whose authority the ship is subject. This certificate testifies to the technical proficiency of the telegraphist as regards:—(a) The adjustment of apparatus; (b) transmission and sound reading at a speed which must not fall short of 20 words a minute; (c) knowledge of the regulations applicable to the exchange of radiotelegraphic traffic.

(4.) In addition, the certificate testifies that the Government has bound the telegraphist to the obligation of preserving the secrecy of correspondence.

VII.—(1.) If an Administration has information of a breach of the Convention or of the Regulations committed at one of the stations which it has authorised, it shall verify the facts and fix the responsibility. In the case of ship stations, if the responsibility falls on the telegraphist, the Administration shall take the necessary steps, and, if need be, withdraw his certificate. If it is proved that the breach was due to the condition of the apparatus, or to instructions given to the telegraphist, similar steps shall be taken with regard to the licence granted to the ship.

(2.) In the event of repeated breaches by the same ship, if the representations made to the Administration to whose authority the ship is subject by another Administration remain without effect, the latter is empowered, after giving notice, to authorise its coast stations to refuse communications from the ship in question. In case of difference between the two Administrations, the question shall be submitted to arbitration at the instance of one of the Governments in question. The procedure followed shall be that indicated in Article 18 of the Conventions."

(3.) *To follow the Regulations of the International Telegraph Convention as closely as possible, with a view to making commercial wireless telegraphy a logical expansion of ordinary telegraphy.* That is in Articles XV. and XLII. of the Regulation:

Article XV.—"The signals used are those of the International Morse Code."

Article XLII.—"The provisions of the International Telegraph Regulations are applicable, by analogy, to radiotelegraphic correspondence in so far as they are not inconsistent with the provisions of the present Regulations."

(4.) *To protect ourselves in the event of experience proving that intercommunication between certain systems at any time was technically impossible.* That is covered by the Protocol, Articles II., III., and IV.

Article II.—"Each contracting Government may reserve the power of designating, according to circumstances, certain coast stations which shall be exempt from the obligation imposed by Article 3 of the Convention, on condition that, on and from the application of this provision, there shall be open on its territory one or more stations subject to the obligations of Article 3 and providing for the radiotelegraphic service in the region served by the exempted stations in such a manner as to satisfy the requirements of public correspondence. The Governments which wish to reserve this power must notify their desire in the form prescribed in the second paragraph of Article 16 of the Convention, not

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later than three months before the Convention comes into operation, or, in the case of later adhesions, at the moment of adhesion.

"The countries whose names appear below declare, at once, that they will not reserve this power:—Argentine Republic, Austria, Belgium, Brazil, Bulgaria, Chili, Germany, Greece, Hungary, Mexico, Monaco, Netherlands, Norway, Roumania, Russia, Sweden, United States of America, Uruguay."

Article III.—"The manner of carrying out the provision of the preceding Article is left to the Government which avails itself of the right of exemption: this Government has full liberty to decide, from time to time, according to its own judgment, how many and what stations shall be exempted. This Government has the same liberty in regard to the manner of carrying out the condition relative to the keeping open of other stations subject to the obligations of Article 3, and providing for the radiotelegraphic service in the region served by the exempted stations in such a manner as to satisfy the requirements of public correspondence."

Article IV.—"It is understood that, in order that scientific progress may not be impeded, the provisions of Article 3 of the Convention do not prevent the possible use of a system of radiotelegraphy incapable of communicating with other systems, provided always that this incapacity is due to the specific nature of the system, and is not the result of arrangements adopted solely with a view to prevent intercommunication." (5) *To lay the foundations of an International Code Language between operators.* That is found at page 111, of the Procès-Verbaux—the translation of it. (6) *To disturb existing organisations as little as possible.* That also is in Articles II., III., and IV. of the Protocol. (7) *To reserve absolute freedom of action within our own territory.* That again is in Articles II., III., and IV. of the Protocol in particular, but almost every Article and Regulation is to this end. (8) *To render international obligations as few, as light, and little irksome to ourselves as possible.* (Again Protocol II., III., and IV.) (9) *To ensure from all our stations exempted equally with international, the benefits of the Convention as regards facilities for handling wireless traffic.* This was obtained by the full recognition of the principle of exempted stations by the Convention.

1126. I will ask you now to come to the causes which contribute to interference and confusion between wireless telegraph stations. Then when you have answered that I will ask you to state the steps taken by the British delegates to minimise the effect of these causes?—The causes which contribute to interference and confusion between wireless telegraph stations are: (1) Too many shore stations in any particular area. (2) Instructional and experimental work by shore stations in the commercial area. (2A) Instructional and experimental work by ships in the commercial area. (3) Yachts, tramp steamers, and such-like stations which might be equipped with wireless telegraph apparatus. (4) Excess of power used by any particular station. (5) Constant calls and constant repetitions. (6) Unnecessary signals. (7) Dissimilarity

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larity of methods of working traffic by different operators of different nationalities or companies. (8) The want of an international language between operators. (9) Bad apparatus. (10) Bad operators, under no control, and no means of proceeding against offenders. Then the steps taken by the British delegates to minimise the effect of these causes may be stated thus: (1) Prevention in our own hands as regards Great Britain under the Wireless Telegraph Act. (2) Prevention in our own hands (except, perhaps, as regards French shore stations) under the Wireless Telegraph Act. (2A.) Convention Article V. Regulations. (3) Prevention can only be secured by International Agreement. All these stations will be obliged to carry licensed operators and licensed apparatus of the same standard as that required for the largest liner. (*Vide* Articles VI. and VII. of the Regulations.) (4) Prevention can only be secured by International Agreement. (*Vide* Articles VI.(c), XIX.(2), XXVIII., and XXX. Regulations.) (5) Prevention can only be secured by International Agreement (*Vide* Articles XX., XXI. and XXVII. Regulations.) (6) Prevention can only be secured by International Agreement. (*Vide* Article V. Regulations.) (7) Prevention can only be secured by International Agreement. The Convention itself secures this point. (8) Can only be secured by International Agreement. Provided for at p. 111 *Procès-Verbaux* and Article XVII. Regulations. (9) Prevention can only be secured by International Agreement (*Vide* Article VI. Regulations.) (10) Prevention can only be secured by International Agreement. (*Vide* Articles VI. and VII. Regulations.)

Mr. Gwynn.

1127. You said when you were dealing with a fleet of ships that you found you could meet the situation successfully. In that case are you operated by one system or by several?—Well, they are all on one system, of course.

1128. What system are you using?—We might be using the Marconi system. We did so when we first started, certainly. The difficulties under consideration arise, however, through the operators; they have nothing to do with the apparatus employed by them.

1129. So that you are using the Marconi apparatus in that case?—We are not now using the Marconi apparatus only, but portions of it; we are using some pieces of it—the magnetic detector, for instance, we are using.

1130. Are you using a special system belonging to the Navy concerning which we had some evidence?—Yes, I think I may say that; we are.

1131. When did the Admiralty get that system?—I do not think I am prepared to answer that.

1132. Are long wave lengths at present being used for commercial purposes?—Excepting power stations, I know of no station at the present moment using anything over 2,000 feet; that is 600 or 700 metres. I beg your pardon, I should say except the Brow Head Station, which is using a 3,000-foot wave length.

0.6.

Mr. Gwynn—continued.

1133. In regard to the matter we were discussing before about the improved relations between the Marconi Company and the Company at Scheveningen, do you think that such a friendly arrangement can only be arrived at by accepting the principle of intercommunication, or is it possible that two competing systems might find it to their mutual advantage to come to an understanding without accepting the intercommunication?—It is conceivable if there were very few cases for arrangement, but where you have got a large number of nations and such a large number of companies it is very difficult to imagine a mutual arrangement between the whole of them without some general agreement being come to—an international agreement, in fact.

1134. I think you said there was very little *bonâ-fide* wireless communication going on in the restricted area of the Channel?—I said as far as the East coast was concerned.

1135. As far as the East coast is concerned; you limit it to that?—Yes. As you go on west the traffic gets heavier. Would you like to hear as a matter of curiosity the stations you can hear at Dover?

1136. I should?—If I name them it may help you to see what the difficulties of the situation are. For instance, Dover gets the following stations; she used to get Machrihanish, when Machrihanish was in existence—it gets Poldhu, Nauen, and another German station called—I believe it was—Norddeich, but I am not certain; it gets a French power station—there are five of these power stations, but of course they do not interfere at all with the ordinary traffic; the wave length is too long. In addition to that it gets Scheveningen, Newhaven, Dieppe, Cambridge, Oxford, Shoeburyness, the Lodge Muirhead station at Hythe—there are several of those about: I do not really know where some of them are, but evidently two or three stations are working on the Lodge Muirhead system; they (the Lodge Muirhead) work a good deal with the Military, and of course Dover gets the Military stations as well; then it gets the Flushing boats, the Board of Trade lightships, the Belgian packets, the North Foreland, the Marconi liners, the Telefunken liners, and an enormous quantity of Naval work. I assure you if you go down to Dover at any time there is hardly a moment in the day in which you cannot detect two or more stations working at the same time—simultaneously.

1137. Most of that you say is superfluous work?—Well, I had the opportunity of finding out the other day the average amount of work done—actually passing—during the 24 hours, and this is the result: The Newhaven and Dieppe service, for instance, sends about six messages in the 24 hours; Scheveningen and the Flushing boats 12 in 24 hours; the Ostend boats about six in 24 hours; the North Foreland and Marconi ships about six messages a week. That is the traffic—the *bonâ-fide* traffic—that goes on at Dover, and at times these stations have had great difficulties in getting these messages through. They spend sometimes a long time trying to get the message through simply because

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cause of the amount of interference that goes on.

1138. That only works out to about a hundred messages a day, I think?—It does not work out so much as that, I think; there is a great deal more work on the West; I am talking of the East coast at Dover, which from the wireless point of view is the most congested of all.

1139. And there is no method of checking this superfluous talk except by an International Convention, you think?—No, I do not think there is, I think it is more likely to grow in fact.

1140. Apart from Convention altogether, you do not think it would be restrained by considerations of mutual convenience or individual convenience?—I do not think so, judging by what has been going on.

1141. Do the Marconi Company exercise control over their operators in this matter?—As far as they can, but I think a great many things go on that they cannot control. There is much operators' talk that goes on that you cannot control except by having a policing system of some sort. I do not see how the best company in the world is going to control its operators unless you can get one operator to inform against another.

1142. To go to another point the question of whether the Marconi Company could maintain and improve its position. Unless the Marconi Company accept intercommunication you consider that stations will grow up inevitably in foreign territory expressly to compete?—I think they must.

1143. Is it not the case that there are stations already on the French coast?—Exactly.

1144. Is traffic going through them?—There is a certain amount of traffic that goes through Ushant—not very much.

1145. You think they have succeeded to some extent in improving the Marconi Company's position?—I know for certain that there are three steamers which do always communicate with Ushant—three Hamburg-American boats.

1146. Nevertheless, you said, I think, that the Marconi Company had, at present, an enormous proportion of the traffic in these seas?—At present, but they will lose it as soon as ever the Convention comes into force if they persist in their policy of non-intercommunication, for the simple reason that every State has undertaken to accept intercommunication, and they will issue licences to ships as soon as the Convention comes into force and the Marconi Company, unless they accept intercommunication, must of necessity lose their foreign shipping, which puts a very different aspect upon the situation.

1147. You mean to say, I gather, that as a consequence of the Convention the ships of all nations that have accepted the Convention are bound to reject Marconi apparatus?—That is what it looks to me like, unless the Marconi Company accept intercommunication.

1148. Unless they accept intercommunication?—Yes.

Mr. Arthur Lee.

1149. In reference to this question of conversation between operators—which I understand from you is the chief cause of trouble at the present time—you say that it could only be stopped by some kind of police system?—Yes.

Mr. Arthur Lee—continued.

1150. How could that be effected? How could you identify say, a volley of expletives coming from any given stations?—It will be difficult, but still we know the movements of all steamers and ships, and to a very great extent, we know where they work. In the first place, the ship cannot enter into communication without making her call sign—she must establish her identity before she starts.

1151. I thought this applied to conversations between shore stations?—No, between ships and shore stations.

1152. There is no such conversation then you find between shore stations?—They are not as a rule in touch with each other; in fact, I do not know of any, except Newhaven and Dieppe, that are in touch with each other except for special experimental work.

1153. Whilst you say a ship would not be allowed to communicate unless she gave her number, I presume she could still talk to you without giving her number?—Yes.

1154. I see in this paper that you have handed in you speak in No. 8 of the want of an International language between operators, and then you refer to the Procès-Verbaux in explanation?—Yes, that is provided for at p. 111 of the Translation of the Procès-Verbaux; the "181" is a misprint. "Finally, there still remained to be discussed Amendment No. 95," and so on. There you see the basis of an International language between operators. Of course the idea of that is that we should be able to add to that from time to time as experience would indicate the desirability of doing.

1155. I found it rather difficult to follow your evidence with regard to possible interference between stations that were in the same region. I understood you to say that all shore stations should be as far apart as possible?—Yes.

1156. And you added that this could always be done in the case of shore stations?—If you have stations on the same wave length the stations ought to be at least their normal range apart, and to prevent any interference between ships at sea working to stations they should really be double the normal range apart. It is not absolutely necessary in practice, but they should be at least their normal range apart.

1157. What is their normal range?—Taking a hundred mile station, the stations should be a hundred miles apart.

1158. We have in previous evidence discussed the question of such places as Malta, Gibraltar, Hong Kong, and so forth as to the difficulty, if they were made exempted stations, of providing under the terms of the Convention a second station which should be a communicating station, and the view was expressed by one witness that this could be done perfectly well in a place like Gibraltar—that two stations could be set up there without risk of interference; that does not seem to exactly tally with what you have said?—I am only saying what is absolutely the basis under ideal conditions. A few years ago a technical person would not have undertaken to put two stations at Gibraltar which would be effective.

1159. They could not work the two at the same time?—No, they could not.

1160. That

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Mr. Arthur Lee—continued.

1160. That is rather an important point?—Not commercial stations on a short wave length.

1161. Under present conditions it would not be possible to work them at the same time?—On a 300 metre or a 600 metre wave length; but there is no reason why there should not be a Naval station on a long wave length—as Commander Payne stated—which might work at the same time. Provided the difference in the wave length is sufficient you can do wonderful things in wireless telegraphy.

1162. With regard to this German station at Nauen you do not consider that it would be likely to interfere with Poldhu, for example, if it chose to communicate with its own ships in the Atlantic?—I should think it would be very difficult for the German station to interfere with Poldhu even if it used the same wave length; Poldhu would probably be so much stronger that it would overcome the German station. The German station is badly situate as regards the Atlantic, it is 900 miles back.

1163. Do you mean even if using the same wave length?—There are two distinct ways of tuning. You may have one signal very much louder than the other—you may read one over the other; and in addition to that there is the tuning by syntony if the wave lengths are dissimilar.

1164. You really do not think that the establishment of these powerful stations at Nauen and the Eiffel Tower, for example, are likely to interfere with our own high power stations?—They are not at all likely to interfere to anything like the same extent as between two competing companies. It seems to me it is purely a question of international arrangement.

1165. They are not actually regulated by an International arrangement?—No, they are not except as regards the fact that they must avoid mutual interference as far as possible.

1166. Would it not have been better to have had a clause in the Convention specifically regulating such stations?—No, we know so little about them that it is better not at present.

Mr. Lambert.

1167. Naval interests are perfectly protected under the Convention?—Absolutely.

1168. You said just now that other systems were technically as efficient as the Marconi. What do you mean by "technically" in that reference?—I mean that they do just as well under the same conditions, and as far as communicating is concerned at the same distance with the same power; but, of course, I only have a general knowledge of other systems, and from what I have observed of their working and from my general knowledge I hold that there are other systems which are just as good technically as the Marconi system. Of course, it is only an expression of opinion.

1169. You have studied the question thoroughly?—I have studied the question very much.

Mr. Sydney Buxton

1170. I understand that you are giving the

Mr. Sidney Burton—continued.

evidence, which you have given, officially on behalf of the Board of Admiralty?—Yes.

1171. I want to ask you a question about Gibraltar. In the first place, I take it under the Convention we should have full control of non-adhering Colonies; the Admiralty would have full control to decide whether or not they would make an intercommunicating station?—Yes. May I put it in this way, Sir: As far as I make out there are four distinct courses which are open to be adopted at Gibraltar. First, we might not adhere at all for Gibraltar (it is not necessary to adhere for Gibraltar at all); secondly, we might adhere, but not open the station for commercial work, although this, of course, would be a very limited adherence, since it would merely involve the carrying out of Articles VIII. and IX. of the Convention. That is, the only practical point would be that Gibraltar would secure the benefit of the general non-intercommunicating provision, while we are bound to give the benefit of that provision to other stations. A third course would be to adhere and to open the existing station for commercial work—that is, open the existing naval station for commercial work; and there is no reason why we should not do so. Fourthly, we might adhere and open the existing naval station for commercial purposes, but exempt it from the obligation of intercommunication. In this case it would be necessary, of course, under the Convention to open another station at Gibraltar.

Mr. Arthur Lee.

1172. Can you say which course the Admiralty propose to adopt?—No, I am afraid I have no knowledge of that; I could not tell you.

Mr. Sydney Buxton.

1173. I will not press the point. As regards the Nauen land station on which Mr. Lee asked some questions, I understood from the evidence of Commander Payne that that station could communicate with ships at a considerable distance; but could the ships return replies to the messages under the Convention. The question was whether they could communicate with the Atlantic?—At present, at any rate, it is in my opinion a physical impossibility for ships at very long distances to reply on the short wave allowed them under the Convention.

1174. From the Atlantic?—From the Atlantic. I do not think they could do it.

1175. I understand you to say that in your opinion the existing stations in the Channel, that deal specially with the Channel, are practically sufficient, if they were properly conducted and equipped, for the present?—Yes.

1176. Do you mean by that, assuming we adhere to the Convention, that there would be no necessity for the erection of other stations on foreign soil?—No; if the Convention is ratified and the Marconi Company come in, and we all try to make an effort, there is no necessity to erect any more stations on the south coast at all; the existing stations are ample to cope with the traffic at present in existence.

1177. If we stood out, or the Marconi Company

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pany, would it be necessary for our own protection to erect stations?—We should have to erect other stations.

1178. I suppose from the Admiralty point of view that would be disadvantageous, would it?—The fewer stations there are the better, there is no question about it.

1179. And in time of war?—We do not want them in time of war; we have our own.

1180. In time of war it would be an advantage, would it not, to have them on British soil?—We have absolute power in time of war to do anything we like.

1181. On British soil?—On British soil.

Mr. Arthur Lee.

1182. Do I understand you to say that there is nothing in the Convention which would prevent France, for example, putting up a series of stations on her coasts, not with a view to interfering, but with a view to encouraging a company which had its origin in France?—Of course not.

1183. Therefore the advantage you spoke of of our being already in the field and having the stations would not necessarily be maintained under the Convention?—I do not see any reason why the Convention should alter our geographical situation.

1184. But it has been rather represented that if the Convention is ratified the existing situation, which is in our favour, would be crystallised?—Yes, I agree.

1185. Will not the French Government, say, be likely to assist a system which has its origin in France to put up stations and let it take its choice of getting a fair share of traffic?—They may; but do you mean the French Government to pay for the cost of the work?

1186. No?—They would not erect stations unless they were likely to pay.

1187. The company would not erect stations

Mr. Arthur Lee—continued.

unless they thought they could get a return for their money.

1188. Is there any reason why they should not get a return?—Only that the majority of the traffic passes nearer to our shores than to the French shores, and nearly every ship wants to communicate with Lloyd's, or people in England.

Chairman.

1189. And under the Convention the ship is bound to communicate with the nearest shore? With the nearest coast station; therefore it is that I say that by virtue of our geographical position we have the most favourable position.

Mr. Sydney Buxton.

1190. If the Convention is agreed to, you mean, there would be no encouragement at all events for the erection of stations on foreign soil?—No.

1191. And if it is not agreed to they will be forced to do it in their own defence?—Yes, if it is not agreed to; suppose they cannot communicate with England, they will communicate with someone else.

1192. There is one question about the communication with the Dutch station by the Marconi Company, that I should like to put to you. You have handed in this agreement dated February 1st, 1907. This is a translation given me of Article 3. "These stations are worked by the Marconi Company of Brussels, and, in accordance with the provisions of the above-mentioned licence, communicate with the Netherlands station at Scheveningen." That is not on the Marconi system; that is to say that Marconi has agreed, as regards these stations, to have the intercommunication?—Yes.

1193. The result of which is that the interference is very much diminished?—That is the report I have received from our people.

Mr. G. W. JOHNSON, C.M.G., called in; and Examined.

Chairman.

1194. You are Principal Clerk in the Colonial Office, are you not?—One of the Principal Clerks.

1195. Will you tell the Committee what experience you have had in matters connected with wireless telegraphy?—I have served as the Colonial Office representative on the Cables' Committee—which, as you know, deals also with wireless telegraphy—for the last three years, and I had previously served nine months on it in 1901, and I have had cognisance of practically all the correspondence which has passed through the Colonial Office in connection with the establishment of wireless telegraphy in the Colonies.

1196. Have the Colonial Governments control over wireless telegraphy similar to that provided by the wireless telegraphy Acts in this country?—All the Colonial Governments have

Chairman—continued.

passed laws giving the Government complete control over wireless telegraphy in their respective Colonies, no person or company being allowed to erect or work a wireless telegraphy station without a licence from the Government.

1197. Do their "wireless" laws follow the same lines as ours?—In effect. They are not worded in the same way, but in effect they are the same. They are in one sense more complete than the English Act, because they are unlimited in time.

1198. What has been the attitude of the Colonies towards granting a monopoly in wireless telegraphy?—In the case of the Crown Colonies, controlled by the Secretary of State, not only the present Secretary of State, but also his predecessors, have invariably opposed the idea of any monopoly, and the larger Colonies, particularly

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particularly Canada and the Cape, and, I believe, also Australia, have expressed themselves as wholly opposed to any monopoly, and no monopoly has been granted in any single Colony with one exception, namely, Newfoundland. In that colony the Colonial Government has entered into an agreement with the Marconi Wireless Telegraph Company of Canada, for the establishment and working of certain Government stations, and one of the conditions of this agreement is that the Government undertakes for a period of ten years from 1906 that it shall not grant licences to stations of any other wireless system.

1199. Would this prevent the Newfoundland Government from enforcing intercommunication with other systems?—I believe not. There appears to be nothing in this agreement to prevent the Colonial Government from enforcing inter-communication with ships using other systems both at the Government stations and at the company's own stations.

1200. In what Colonies have stations already been established?—There are a few shore to shore stations on the Labrador coast of Newfoundland. A chain of Government stations has been established in Canada and at three points in Newfoundland along the Gulf of St. Lawrence on the Marconi system, which are worked by the Marconi Company of Canada, for the Government of Canada. The Marconi Company has also a long-distance station of its own at Cape Breton, but the Canadian Government has expressly stipulated in its agreements with the Marconi Company that they shall not be construed as giving to the company an exclusive licence for wireless telegraphy in Canada or in any part of Canada. In fact, that Government has now under its consideration applications from the Dominion de Forest Company for permission to establish two short-distance stations and one long-distance station in Canada. I do not know whether those applications have been granted; they are under the consideration of the Government.

1201. What about the other Colonies?—There has been very little wireless telegraphy in any other Colony. No stations have been at present established in either South Africa, Australia, or New Zealand, but a certain amount of experimental work has gone on, and the question of establishing it is under consideration in those places. The principal point not yet settled is the system to be employed. Only a very few stations exist in any of the smaller Crown Colonies.

1202. Can you specify those?—In Trinidad a Government installation on the Lodge-Muirhead system has been set up connecting the island with the neighbouring island of Tobago.

1203. Has this system worked well?—This system has been in operation for the last 15 months, and has worked very satisfactorily with very few interruptions, and those interruptions only of short duration, due to damages to the apparatus or some defects in the apparatus—slight damages—and not to any climatic causes.

1204. What is the distance from Trinidad to the island of Tobago?—About 30 miles.

Chairman—continued.

1205. Are these stations used for general commercial purposes?—Yes. There is not much work carried on; there is not much demand for it, but about 35 messages a month are sent between the islands in addition to the daily press telegrams, these latter averaging about 250 words a day. They also undertake on behalf of Lloyd's to receive messages from passing vessels. The question of connecting other islands of the West Indies by wireless telegraphy has been and still is under consideration; in fact, we have asked various companies for information as to the cost of such a system, but nothing has yet been decided.

1206. Are there wireless telegraphy stations in any of the other colonies?—Only private stations—at Singapore, Hong Kong and Labuan belonging to the Eastern Extension Telegraph Company, which are used for the purpose of communicating with their cable-repairing ships; and an experimental licence has been granted at Lagos to the African Direct Telegraph Company. These companies, it is understood, use the Lodge-Muirhead system. The only remaining stations are Admiralty stations at Gibraltar and Malta and a temporary Admiralty Station at Hong Kong.

1207. Have any ships been licensed in the colonies?—Vessels belonging to the Quebec Steamship Company, in Canada, have been licensed and equipped with de Forest apparatus. Some of the ships belonging to the Canadian Government are equipped with Marconi apparatus. A licence has been granted in Jamaica to the Royal Mail Steam Packet Company to use the de Forest apparatus on their ships within the territorial waters of that Colony.

1208. Have there been any other applications for licences which have not yet been granted?—Several applications have for some time been under consideration for establishing ship to shore stations in various colonies. Applications from Lloyd's are under consideration in Cape Colony, Jamaica, Ceylon, Barbados, St. Lucia, St. Helena, Straits Settlements, Falklands, Mauritius, Sierra Leone and Fiji. Applications from the de Forest Company are under consideration in Canada, as I have already stated; also in Jamaica, and from the Fessenden Company in Bermuda. Licences would have been granted to Lloyd's in all these colonies—at least in several of them—many months ago if it had not been for difficulties arising out of Lloyd's agreements with the Marconi Company. Those agreements are understood to preclude them from inter-communicating with other systems, and this condition of inter-communication has always been regarded by the Colonial Office on behalf of the Crown Colonies and by the Cape Government as an essential condition.

1209. Has any special form of licence been adopted in the Colonies?—The form that has been adopted so far as any licences have been issued—the form that has been recommended by the Colonial Office—is in effect the same as the model form of licence printed on pages 147 to 167 of the volume laid before the Committee, subject to verbal alterations to suit local needs

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Chairman—continued.

needs, and these licences include a condition that the licencees should comply with the provisions of any International Convention regarding wireless telegraphy to which the Government might hereafter adhere, especially in regard to the obligation to intercommunicate with other systems.

1210. Has this form of licence led to any difficulty?—Last year the Marconi Company wrote to the Colonial Office urging that the acceptance of such a condition, which might involve compulsory intercommunication with ships using other systems, would prejudice if not invalidate their patents, and asked the Secretary of State to withdraw the recommendation which he had made to the Natal Government that the condition should be insisted upon. The Secretary of State did not accede to this request, but suggested to the Natal Government that the clause might be amended by adding the following proviso: "Provided that by interchanging messages with other systems under this clause the Company shall not be deemed to prejudice any remedy they may have against any person for the infringement of any patent rights they may possess." A proviso to a similar effect had been previously inserted at the request of the Company in their agreement with the Postmaster-General, which is in the volume already before the Committee. The words in that agreement were "without prejudice to their patent rights." It is understood that at present no licence has been issued by the Natal Government to the Marconi Company; in fact, outside Canada and Newfoundland there are no Marconi stations in any colony.

1211. Have the Colonial Governments expressed any opinion upon the present Convention?—The Draft Convention was communicated to the responsible Government Colonies in January, 1905. You will find the correspondence with those Governments printed at page 209 of the volume laid before the Committee. They were requested to forward any observations they might have to make upon the Draft Convention, and they were told that they would not be committed to any Convention without their consent. In the replies received from the Colonial Governments no dissent was expressed of any kind. Some of them said they had no observations to offer; others expressed general approval of the provisions of the Draft Convention and regulations, and only one amendment was suggested (by the Cape Government) in the detailed regulations. This amendment was attended to by the British Delegates at the Conference, and at their suggestion the regulation in question was amended. This point is noted at page 36 of the comparison between the Draft Convention and the Convention as finally adopted.

1212. Are the Colonial Governments likely to object to the provisions as to votes at future Conferences?—I think not. We have no reason to suppose that any serious objection will be raised by any of the Colonial Governments to the provisions in the Convention as to the number of votes which may be assigned to the Colonies, since if the Colonies generally decide

Chairman—continued.

to adhere to the Convention they will doubtless be able to secure the same number of votes as they have under the Postal Convention. Under that Convention it has been found in practice that the views of the Colonies receive satisfactory and adequate recognition.

1213. Do you consider the Convention satisfactory from a Colonial point of view?—Entirely.

1214. What advantages would they gain from adhering to the Convention?—Generally speaking, the advantages would be the same to the Colonies as those already indicated by previous witnesses, and in particular it would encourage the establishment of stations in British Colonies rather than in neighbouring foreign countries.

1215. Do you think the Colonies are likely to adhere to the Convention?—No definite decision has yet been taken, of course, but if Great Britain ratifies the Convention the Secretary of State will no doubt consider it desirable that the Crown Colonies generally should adhere—in fact he has already so stated; it was stated by the British Delegates during the Conference that in all probability the Colonies generally would adhere. There may perhaps be exceptions—such as Gibraltar; it may possibly be considered that that Colony should not adhere. The case of Gibraltar and other similar cases—if there are any—would be decided upon the merits of each special case, after of course consulting the Admiralty; the Colonial Office would not decide a case of that kind without consulting the Admiralty. In the case of responsible Government Colonies the decision would of course entirely rest with the respective Colonial Governments, and the Secretary of State would have no voice in the matter.

1216. Do we possess a corresponding number of votes to all self-governing Colonies?—You mean under this Convention?

1217. Yes, under the Convention—the number of votes that are to be allocated to Great Britain according to the Colonies—would they correspond to the number of Colonies under the system of self-government?—No, it would not be so. The maximum at present arranged is six, and supposing all the Colonies adhered, if the allocation were made in the same way as under the Postal Convention, England would have one, India another, Canada a third, South Africa the fourth, Australia the fifth and New Zealand the sixth. England in other words would represent, not only itself, but all the Crown Colonies. It has never been thought essential that each small colony should have a vote.

1218. One self-governing colony that would not have a vote would be Newfoundland?—And the Transvaal; but they have no coast, and they are not likely to have ship to shore stations.

1219. But you do not anticipate any difficulty on account of that, I understand?—None at all.

Mr. Sydney Burton.

1220. Under the Postal Convention the colonies have, I understand, five votes and England one, and your idea apparently would be that as this Convention is put on the Postal Union

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[Continued.]

Mr. Sidney Buxton—continued.

Union system, probably the same allocation of votes would prevail. Is that the point?—If the colonies adhered.

1221. Assuming the colonies adhere?—If, for example, Canada did not adhere there would be a vote to spare for somebody else.

1222. I gather from what you have said that it has been understood between the colonies and the Mother Country that the Convention should be discussed, and, if necessary, agreed to by Great Britain, and that they would then adhere later on, or not, as they chose?—Yes.

1223. But it has never been intended, has it, that they should come in originally?—No, it was always proposed in the case of all the Crown Colonies that they should adhere separately.

1224. That was inserted in the Convention?—That was inserted in the Convention. That clause applies not only to the self-governing Colonies, but to each of the Crown colonies.

1225. You have said in your evidence that the granting of licences in various colonies had been delayed, and I understood you to say on two grounds, one in regard to Lloyd's. Did not you say that they would in the ordinary way have been granted to Lloyd's but that Lloyd's was hampered or tied up by the Marconi agreement. Is that what you said?—Yes.

1226. What do you mean by that?—Lloyd's intimated that they were unable to accept the condition of intercommunication with other systems.

1227. And if that condition had disappeared the licences would probably have been granted to Lloyd's, is that so?—They would have been; in fact they were promised more than a year ago.

Mr. Arthur Lee.

1228. I understood you to say that the only self-governing Colony which would be without a vote in the event of their all adhering would be the Transvaal?—Newfoundland and the Transvaal.

1229. Surely there would be also either Natal or Cape Colony?—Oh, I beg your pardon; I was wrong in mentioning the Transvaal, because Natal under the Postal Convention comes in as "South Africa;" and in this case it would be "South Africa"—not a separate vote for Natal or the Cape.

1230. Have you any reason to suppose that Natal and Cape Colony would be satisfied with only one vote between them?—They have been satisfied before under the Postal Convention.

1231. This special point in relation to the Radio-Telegraphic Convention has not been submitted to them?—No, not in that form. The Convention has been sent to them, but we have received nothing from them at present.

1232. There is no other correspondence, do you say?—There has been no correspondence with them, except merely formal despatches sending them copies of the Convention; as soon as a document of this sort is in existence it goes to the colonies as a matter of course.

1233. You have no reason to suppose that Newfoundland, for example, would feel aggrieved

Mr. Arthur Lee—continued.

if they did not receive a separate vote with Canada, in view of its great importance as a wireless telegraphy station, geographically speaking?—I should not like to say that they might not raise the point. It is just possible that they might object.

Mr. Sydney Buxton.

1234. On that, I take it that the five votes are at the present moment, and at the next Conference, the number for allocation, and if any colony can make out a special claim, that, I take it, might be considered?—Yes. In the case of the last Postal Congress at Rome, New Zealand did succeed in getting an extra vote for itself.

1235. Because she was so largely interested in postal matters?—Because she was so largely interested in postal matters.

1236. If she was not interested in wireless telegraphy so much as Newfoundland was, there would be no reason why Newfoundland should not ask for the vote?—It might be brought before the next Conference, and they might be induced to do as was done at the Postal Congress in the case of New Zealand.

Mr. Arthur Lee.

1237. I quite see that if one Colony was willing to give way, the vote might be given to another, but suppose they were all anxious to have a vote—one or two of the self-governing Colonies would be compelled to stand out?—That is so.

1238. And this allocation of the votes is settled by the Colonial Office at home arbitrarily?—No; the allocation of votes is settled by the Conference.

1239. The Conference eventually; but in the meantime the Home Government will submit a list of the Colonies to whom they propose to give a vote?—It would only be done with the consent of the Colonies. Possibly, of course, you could not get unanimous consent. Suppose there was only one vote and Canada wanted that vote, and Newfoundland wanted that vote, if we could not get Newfoundland to agree to go in with Canada, I think it is just possible the Government would support Canada against Newfoundland, as being the larger Colony, but only in that sense, I think, would the Home Government act arbitrarily; naturally the stronger support would be given to the larger Colony—the more important Colony.

1240. I presume the Government is anxious to ascertain the wishes of the Colonies with regard to this matter of relative claims?—Certainly

1241. Will the question be submitted to the Colonial Conference?—There is no intention of submitting it at present. None of the Colonial Governments have suggested its coming before the Colonial Conference.

1242. Does it not seem to be a proper matter for the Home Government to submit to the Colonial Conference while the Colonies are here represented, with a view to finding out which

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[Continued.]

Mr. *Arthur Lee*—continued.

are anxious to have the vote and which are not?—The question appears to me first to be which will adhere and which will not. For example, as regards the particular question you have raised, it seems very possible that Newfoundland will not adhere anyhow; I cannot prophesy, but I mean to say it is of all the Colonies the most likely not to adhere. I gather that from their dispatch which is printed *here*. The Newfoundland Government expressed their gratitude on learning that they would not be committed without their consent to any

Mr. *Arthur Lee*—continued.

Convention. They are the only Colony that expressly allude to the point,—they gave a sort of warning.

1243. They may have had some ulterior motive in making that remark, may they not?—The fact that they were then negotiating with the Marconi Company would be a possible explanation.

1244. You do not think it could have had any bearing upon the Newfoundland Fisheries question?—I cannot say.

Tuesday, 16th April 1907.

MEMBERS PRESENT:

Mr. Adkins.
Mr. Sidney Buxton.
Sir John Dickson-Poynder.
Mr. Gwynn.

Sir William Holland.
Mr. Lambert.
Mr. Arthur Lee.
Mr. Macpherson.

Sir JOHN DICKSON-POYNDER, IN THE CHAIR.

Mr. H. CUTHBERT HALL, called in; and Examined.

Chairman.

1245. You are the managing director of the Marconi Company, are you not?—Yes.

1246. Can you tell the Committee the date of the formation of the Company?—The 20th July, 1897.

1247. And as to its capitalisation?—Its original capitalisation was £100,000 in 100,000 shares of £1 each. Its present capitalisation is £500,000; issued, £384,000.

1248. What did the Marconi Company acquire?—The Marconi patents for all the world, with the exception of Italy, with the right to future improvements.

1249. What was the Company's early policy?—For the first few years it was principally occupied in developing the inventions and in endeavouring to secure their adoption by Governments and Government Departments.

1250. What results were brought about by that policy?—Experimentally the range of the apparatus was increased from two or three miles in 1896 to about 250 or 300 miles in 1900. Mr. Marconi also invented tuning; he took out a tuning patent in 1900, and demonstrated the practicability of receiving simultaneously at the same station two messages from differently tuned systems. So far as securing the adoption of the invention was concerned, we carried on a service for two years between the Goodwin Lightship and the shore, and the Trinity House and the Board of Trade expressed their satisfaction with the results achieved, but were unable to make any arrangement with us. The War Office tried our apparatus in South Africa; some sets of apparatus were taken off battleships; it was arranged that the War Office should provide the masts or supports for the aerials; no masts or supports were provided, and consequently no messages could be transmitted. Subsequently the War Office pointed out that the experiments had been a failure. With the Admiralty we made an arrangement for the sale of three sets of apparatus at an agreed royalty of £250 per annum. Later the Admiralty wanted more sets but objected to the royalty, and it was reduced to a £100 per annum, and then 32 sets of apparatus were purchased. By that agreement

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Chairman—continued.

also there was a provision for an extra royalty payment for tuned apparatus if the tuned apparatus were adopted.

1251. Then there was the Marconi International Marine Communication Company. What was the date of the formation of that Company?—That was formed in 1900. It acquired the licence from the parent Company for ship to shore communication throughout the world, except the United States and Hawaii, where there was already a company working, and with the exception of the naval rights for Great Britain.

1252. It was confined to ship-to-shore communication with this country?—No; it had a licence for ship-to-shore communication throughout the world, subject to the exceptions mentioned.

1253. What was its capitalisation?—£350,000—£204,000 issued.

1254. And its constitution?—On the board of the Company were a number of prominent men of various countries—a number of influential men. We thought that through those gentlemen we should be able to make arrangements with the countries in which they were prominent. We had a Frenchman, a Spaniard, a Portuguese, Belgians, Germans.

1255. How many English?—There were four or five of the board of the Marconi Wireless Company who went on to that board also.

1256. What was the policy of this Company?—They do not seem to have had any very coherent policy except to try and get the system adopted. The method to be adopted does not seem to have been very clearly thought out; but they approached various Governments trying to sell the apparatus to them, and they tried to sell the apparatus to the shipping companies.

1257. What results were achieved?—The North German Lloyd purchased a set of apparatus and agreed to pay a royalty of a hundred a year; and they also installed two stations in Germany, one at the Borkum Lightship, the other at Borkum Riff. The Belgian Government also established the system on the Belgian packet boats—they purchased

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Mr. HALL.

[Continued.]

Chairman—continued.

purchased the apparatus and worked it themselves.

1258. Has the policy of the Company undergone any change since 1900?—Yes; in 1901 we decided to organise the Company for carrying on a public telegraph service by means of wireless telegraph apparatus instead of trying to sell the apparatus.

1259. What were the reasons for the change?—In the first place the International Company had achieved no success; secondly, it seemed clear that the shipping companies would not buy sets of apparatus to organise the service themselves; it was hardly practicable for them to organise the service themselves; even if they bought the apparatus. It was also necessary to provide coast stations—there was no organisation of coast stations.

1260. What were the means adopted for carrying out this policy?—We installed a number of coast stations in the United Kingdom; two on the East Coast, four on the South Coast in the South of Ireland, in the North of Ireland, at Rosslare, near Dublin, and at Holyhead to command the approaches to Liverpool. We also established some stations in the United States. We then offered the apparatus to shipping companies, supplying the apparatus ourselves, installing it at our own expense, and working it by means of our own operators. We also established a school for the training of operators, and we developed a number of regulations for the service, a copy of which is put in. These regulations provided for the counting of the messages and arrangements for preventing interference and confusion. A number of the shipping companies adopted the apparatus on these terms the Beaver Line, the Cunard, the North German Lloyd, and so on.

1261. Do you find any difficulty in carrying out the policy?—I was going to refer, if I might, to the Lloyd's agreement. In 1901 we made an agreement with Lloyd's for 14 years, and I wish to draw particular attention to one of the recitals of that agreement. The agreement gave Lloyd's the exclusive right to what was defined as "Maritime Intelligence"—the reporting of ships: they undertook not to use at their coast stations any apparatus other than the Marconi and not to communicate with ships fitted with apparatus other than Marconi. The agreement contains a recital:—Lloyd's are of opinion that there should be one system of wireless telegraphy in general use—the Marconi system is in such general use and is a good workable system. They not only made an exclusive arrangement with us, but there was a recital pointing out the reasons of it.

Mr. Arthur Lee.

1262. Is that contained in this memorandum?—That is in the Lloyd's agreement, it is a recital in the Lloyd's Agreement.

1263. Can you say whereabouts?—Right at the beginning.

Mr. Gwynn.

1264. What do you say was the date of the agreement?—The 26th September 1901.

Chairman.

1265. When does it expire?—It expires in 1915. Lloyd's pointed out at that time that it was desirable that we should join hands—strengthen our hands—against the Government; they seemed to anticipate—at least they told us that they anticipated—that the Government would want to take control of wireless telegraphy; on the other hand, there seems to have been some private arrangement between Lloyds and the Admiralty, referred to in the evidence given by one of the Admiralty witnesses, by which the Admiralty hoped to secure control of wireless telegraphy through the Lloyd's agreement. On the one hand, Lloyd's were saying: We must join hands and strengthen our position against the Government; on the other hand, they were making a private arrangement with the Admiralty through which the Admiralty hoped to obtain control of our business, and the whole cause of the friction which has arisen between ourselves and Lloyd's has been this desire of Lloyd's to obtain through the contract more than we considered it gave, in order to carry out this agreement or understanding with the Admiralty, to give the Admiralty the control of our organisation.

Mr. Lambert.

1266. What evidence do you refer to as bearing out the contention?—Question 599.

Chairman.

1267. You have dealt with the agreement with Lloyd's now. Have you anything more to say on that? Will you tell the Committee what you have to say with regard to your agreement with the Admiralty?—In 1901 we had made the agreement with the Admiralty to which I have already referred. They purchased 32 sets of apparatus and agreed to pay a royalty of £100 per annum, with a provision for further payment if they adopted the tuned system. They wanted more sets of apparatus, and they objected to the royalty; they considered the royalty was too high; we did not see our way to reducing the terms—we had already reduced the terms once; they began with £250 per annum, then they came down to a £100 per annum; they wanted a further reduction, and we did not see our way to making it; consequently they had our apparatus copied—the apparatus was sent to various manufacturers and copied. This, I think, was disputed at the time, but if it is not admitted now we have evidence which we can produce if necessary which is conclusive on the point. We brought these facts to the knowledge of the Admiralty—brought to their knowledge the fact that we were aware that our apparatus was being copied. Among other things we had a copy of the specification which was sent out to manufacturers. Subsequently—in 1903—a new agreement was made. By that agreement the Admiralty agreed to pay us £5,000 a year royalty for all uses, so that no question should arise as to the number of sets in use. We wish to emphasise particularly the amount of royalty (it is £5,000 a year). In connection with the suggestion that

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Mr. HALL.

[Continued.]

Chairman—continued.

that the company had already made considerable sums out of the Government, or had not done so badly, it was stated by the Postmaster-General that the amount was £40,000 a year; the amount is £5,000, not £40,000.

Mr. Sydney Buxton.

1268. Excuse me, I corrected that?—So I was informed, but unfortunately there are so many people who hear these statements who do not even read the reports, still less the correction.

1269. It was not a misrepresentation; it was a misprint. I corrected it in that sense?—A good many people referred to it and congratulated me on the fact that we were doing so very well out of the Government—we were making £40,000 a year out of the Admiralty—in fact, some of our own shareholders drew attention to it because they were under the impression that it was a smaller amount.

1270. Did not you see the contradiction?—No.

1271. Did not you see it?—No, I did not see it myself; I was told that it had been contradicted.

1272. You do not pay attention to these things?—I paid that “attention” to it; I was told that it was contradicted.

1273. You did not see it yourself?—I did not see it myself—no.

1274. Although your attention was called to it?—I should not have attached much consequence to the fact if I had seen it; I understood that the statement had been made in the House.

1275. It was not made in the House?

Chairman.

1276. That has been corrected; we need not labour that point further. It was a misprint; the correction was made subsequently in the papers, and I think that closes that point?—Yes.

1277. Have you anything more to say with regard to the Admiralty agreement?—The particular feature of it is that it provides for instruction and information. Of course our specifications are available to the Admiralty, they can get a certain amount of information from them: they are supposed to disclose the nature of the inventions. They felt in 1903 that this was not adequate, and special provision was made in the contract for instruction to the Admiralty Officers, and for information with regard to our inventions.

1278. Then there was an agreement with the Canadian Government?—That was in the end of 1901, or early in 1902. We made an arrangement with the Canadian Government for the erection of a number of coast stations for communication with ships, and also for the erection of a high power station for communication across the Atlantic. Prior to that agreement we had also made arrangements with the Newfoundland Government for a number of stations working on the coast.

1279. And with the Italian Government, and with the Belgian—have you anything to say with regard to these other agreements?—That with the

Chairman—continued.

Italian Government is an exclusive licence for ten years for all purposes, and the Italian Government agrees not to communicate with ships fitted with apparatus other than the Marconi.

Mr. Gwynn.

1280. From what date?—The agreement was made on the 19th of March, 1903, and was for ten years—only on the Marconi system, and only communication with ships fitted with the Marconi system. It has been suggested that this arrangement is an arrangement with Mr. Marconi and not with the Company, and that that is a distinction of some importance. Mr. Marconi's views with regard to intercommunication are exactly the same as the Company's, and he would not agree to release the Italian Government.

Chairman.

1281. Did these provisions with regard to non-intercommunication refer to the Belgian agreement as well?—The Belgian agreement, which I was coming to then, is an agreement for the collection of messages and rates in connection with those messages at all the inland telegraph offices in Belgium. We made a number of similar agreements—with the Western Union and Postal Telegraph Companies in the United States, which control the inland work there, with the Canadian Government in respect of their system, and also an agreement with the Netherlands Government and with Italy for collection, and with the British Government—the Post Office.

1282. That exhausts all the agreements which you have had with the various countries and companies, does it not?—Yes; well, all that we wish to refer to in this connection.

1283. All that you wish to refer to. Now, can you explain to the Committee what difficulties you have found in carrying out your policy?—In the first instance, a certain number of competitors sprang up. We regarded them, most of them, as people who were copying our apparatus. The only really important one was Professor Slaby. He had come to England, I think, in 1899 or 1900 with Marconi's credentials from the German Government, pointing out that he was a man of science, with no commercial interests, and that Mr. Marconi might safely show Slaby all that he (Marconi) was doing; and Professor Slaby witnessed Marconi's experiments. Subsequently, on his return to Berlin, he gave a lecture in which he said that he himself had experimented in wireless telegraphy and achieved no results of any consequence, and that it was clear that Marconi had some method at his disposal—some invention at his disposal—which was not known to anyone else; that he had been to London and had seen what Marconi was doing, and that what Marconi did represented real invention. Then there was some proposal for correspondence between Slaby and Marconi for communication of improvements, but Marconi did not respond to that, and subsequently Professor Slaby caused to be manufactured by a German company apparatus which we contend is a colourable imitation of the Marconi system.

1284. Did

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Mr. HALL.

[Continued.]

Chairman—continued.

1284. Did Professor Slaby come here as representing the German Government?—He came here with credentials from the German Government; I do not know that he exactly represented the German Government, but they introduced him to the English Post Office, I believe, and the English Post Office passed him on to Marconi.

Mr. Gwynn.

1285. I do not quite follow. Did you say that he was shown the Marconi apparatus when he was in this country?—Yes, he was.

1286. And that the invention which he referred to as the condition of Marconi's success was something that he had seen, or that he had not seen?—Something of which he was not aware before. He says he had heard accounts of Marconi's experiments, and it was clear to him (Slaby) that Marconi had something or other that was not known to himself (Slaby) or to other people, and he came to England and saw the Marconi apparatus; and he drew special attention after he went back to Berlin to the nature of what he regarded as the particular feature of the Marconi invention.

Mr. Lambert.

1287. Have you examined the credentials of the Professor?—I have never seen them.

Mr. Arthur Lee.

1288. Was he given by the Marconi Company access to the secrets of the inventions, which would have been sufficient to enable him to introduce them?—Oh, certainly. The particular feature is the aerial and the earth connection. The ordinary Hertz Radiator is not earthed, and the distance over which energy can be radiated by means of the Hertz Radiator, other things being equal, is necessarily limited owing to the absence of the earth.

Chairman.

1289. When he returned to Germany did he take any advantage of what he had seen in way of apparatus?—Yes; he caused apparatus to be manufactured, and proceeded to sell, or to try to sell, the apparatus; and that system has received of course the backing of the German Government.

Mr. Gwynn.

1290. His system is not entirely identical with the Marconi, is it?—It contains the essential feature of the Marconi. All the so-called systems are really various methods by which a certain invention has been put into practice, the Lodge, the De Forest—that is our view of the matter—the Slaby, the Braun, the Fessenden, all contain this particular feature, and that feature is claimed in Marconi's first patent. Marconi's patent is the first patent for wireless telegraphy; before that patent there was no wireless telegraphy; there were no patents for wireless telegraphy; since that patent a great many have been taken out.

Mr. Sydney Buxton.

1291. Have you brought actions against these companies for infringement?—We have brought no action at all in England.

1292. Though they have been infringing your patent?—No.

Mr. Arthur Lee.

1293. Have you brought actions elsewhere? Yes, we brought two actions in the United States, one against Dolbear—they retired from that, the Dolbear people, and paid our costs I believe. Another action was brought against the De Forest people in the United States, and we won the action. De Forest was not concerned to show that he had a good patent himself, but merely that Marconi had been anticipated; he therefore cited any known uses of wireless telegraphy which appeared to be anticipations. The Judge, in summing up, after reviewing the work of Dolbear in America, Lodge in England, Popoff in Russia, Hertz in Germany, and Branly in France, said:—"It would seem, therefore, to be a sufficient answer to the attempts to belittle Marconi's great invention that, with the whole scientific world awakened by the disclosures of Hertz in 1887 to the new and undeveloped possibilities of electric waves, nine years elapsed without a single practical or commercially successful result, and Marconi was the first to describe and the first to achieve the transmission of definite intelligible signals by means of these Hertzian waves."

Chairman.

1294. Did you bring any action against this German Company which you say took advantage of your apparatus?—No, none at all. We have the German ships; we have the Hamburg Amerika, and the North German Lloyd's, and the principal uses of "wireless" in Germany, apart from the shipping companies, are by the Government; I imagine our chances of doing business with the German Government would not be very great even if we established the patent.

Mr. Gwynn.

1295. You mean to say that if you went to law at all you would have had to go to law with the Government?—No; the action would have been taken in the Courts of course in the ordinary fashion; but if we won an action in Germany we should have had to enforce our patents against the Government. Governments are in a very privileged position with regard to patent rights. We have good reason to believe that our patent is good there, because in Germany they examine for novelty and utility before they grant a patent; and the Lodge patent was cited as an anticipation of one of the Marconi patents. We caused apparatus to be made from the Lodge specification, and showed that it would not work at all; then apparatus was made from the Marconi specification and it did work, and the patent was granted by the German Government—that is the tuning patent, I think.

1296. You

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Mr. HALL.

[Continued.]

Mr. Atkins.

1296. You brought no action in England against any of these companies?—We brought no action in England at all.

1297. Although they are actually practising in England?—They are not doing any commercial work of any consequence. We have all the shipping companies of any consequence—all the big liners; we are doing all the ship to shore work, and we have agreements with the Admiralty and the Post Office, the Board of Trade, and so on.

Chairman.

1298. Then what experience is it you have had in relation to your agreements with the Colonial Office?—The Colonial Office took some action when the Canadian Government agreement was under negotiation; some communication was sent to the Canadian Government suggesting to them, or requesting them, not to make an agreement without reference to the Colonial Office. That suggestion does not seem to have been acted upon; the agreement was concluded in 1901 or the beginning of 1902.

1299. Then as regards your licences in foreign territory, what have you to say?—That is another of the difficulties with which we have had to contend—whereas foreigners were free to establish stations in England without a licence, we were not free to establish stations in any foreign country without a licence. Practically all the foreign countries made “wireless” a Government monopoly, and “wireless” was also made a Government monopoly in the Crown Colonies and in a number of the self-governing colonies at the instance of the Colonial Office. After the Canadian agreement I think attention was first drawn to the necessity for legislation.

Mr. Sydney Buxton.

1300. You are speaking of what happened before the Wireless Telegraphy Act, are you not? Before the Act of 1904.

1301. Did you speak of that?—I was speaking at that moment of 1902 when the Canadian agreement was made, and then the Colonial Office arranged for legislation with the Crown Colonies, and suggested it, I think, in the self-governing colonies?—I do not know how soon afterwards.

Chairman.

1302. Then you have had difficulties, have you not, with regard to the action of the Post Office as to private wires?—Yes. Prior to 1904—when the Post Office agreement was made—we had been carrying on a service of ship to shore communication for three years, and there was no provision, either for the collection of the messages or the rates in respect of those messages at inland telegraph offices. We could send the messages from ship to shore because our own operators on the ship would collect the messages and the rates, and our operators at the coast stations could walk into a telegraph office and pay the inland rates; but there was no arrangement for the collection of messages in the United Kingdom for transmission to ships and

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the collection of rates in respect of them, and all that anyone could do who wanted to communicate with a man on a ship was to send the telegram to one of our coast stations and leave our operator to send it on and collect the wireless charge from the shore to the ship through the operator on board.

1303. Those difficulties have been overcome since?—Those difficulties have now been overcome. They had already been overcome in the States, and in Belgium and in Italy by agreements with those Governments. We also had some difficulty about private wires.

1304. Were there any foreign proposals as regards amalgamation?—Yes, Siemens and Halske for Braun proposed amalgamation; the Algemeine for Slaby. There were also proposals from a French company—the Popp Company. We considered them, but they seemed to have no inventions: the inventions we regarded as our own; their patent position did not seem to be strong, and they had no business; therefore, after examination, we rejected these proposals. The Slaby and the Braun systems were subsequently amalgamated to form the Telefunken.

Mr. Gwynn.

1305. When you say they had no business, do you mean in the sense that they were selling no apparatus or that they were carrying on no wireless telegraphy?—Our position with the Algemeine was this: We do not value your invention; it is ours. Your patent position in Germany is weak even apart from us (there is Braun), but have you any business? And they had none. They could not show any business at all. They could not even show any scheme of working. We should have been inclined to make an arrangement with them if they had had a position in Germany, for we regarded Germany as rather a closed field for us. If they could have shown us any business there we should have made an arrangement with them there, but they could not. We secured all the liners ourselves—the Hamburg-America and the North German Lloyd, which, of course, are the principal passenger vessels.—

1306. They had no business, you say, of transmitting telegrams, but had they any business as to manufacturing apparatus?—They were manufacturing apparatus, I believe, for the German Government, but they had no telegraph business and no plan for establishing such a business—they merely were making instruments which we considered were copies of our instruments.

Chairman.

1307. Since those days their business has increased, has it not?—Very much.

1308. Considerably?—Principally with instruments for naval and military purposes. They have practically no ship to shore communication, and they are not carrying on the business of a telegraph company by means of wireless telegraph instruments.

1309. Then had you any proposals in this direction from Berlin?—No, we had not, but the German

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German Government took diplomatic action after the failure of these attempts at amalgamation. The German Government took diplomatic action, and notes were sent to certain of the foreign Powers pointing out that England through the operations of the Marconi Company threatened to obtain a monopoly of wireless telegraphy, and calling upon those Powers to assist in preventing its establishment or in overthrowing it. Intercommunication, enforced by an international convention, was the remedy proposed. At the first conference in 1903, the grounds rendering a convention necessary were stated to be the interests of humanity and the safety of shipping. The original note sent out to the Powers pointed out that England was getting a monopoly. At the Conference the Germans said it was necessary to regulate the service, and that it was for the safety of the world's shipping that intercommunication should be enforced.

Mr. Gwynn.

1310. Has the actual text of that note ever been produced?—I published a translation of it.

Chairman.

1311. Can you point out any tangible results have been achieved by your new policy?—Yes. We established a wireless telegraph exchange for ship to shore communication. There are 180 stations in all; in most cases the land stations are connected with the inland telegraph systems of the countries in which they are erected—there are arrangements with the inland telegraph administrations of those countries for the collection of messages and the rates in respect of them. The tonnage of the vessels equipped is 1,053,866; the carrying capacity in passengers of those vessels is, roundly, 3,046,600; the number of words sent or received by us last year was 1,261,000. I know of no stations carrying on a public telegraph service by means of wireless telegraph apparatus on other systems in the sense of transmitting messages of the public on payment of a rate. There are one or two cross-Channel steamers sending messages for ship-service purposes; some coasting vessels in the United States; there are three or four liners—three liners, I think—going down Channel—the Hamburg-Amerika, or some American line—but they are not carrying on a public telegraph service or organised for a public telegraph service by means of wireless telegraph apparatus.

1312. Can you enumerate the countries in which these stations are established?—We have stations in Great Britain (nine) carrying on this public service; and a number of other stations used by the Trinity House for notification of matters relating to shipping—I am not counting those; we have a station in Holland, two in Belgium, 15 in Italy, one in Montenegro; stations at Port Said and Port Tewfik, though there are no merchant ships passing down the Suez Canal fitted with "wireless" at the present moment; there are seven stations in the United States, and it is not correct, as has been stated several times in the evidence, that we have no stations in the United States; we have seven stations in

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the United States carrying on a public telegraph service for communication with vessels fitted with the Marconi system; there are 24 stations in British North America, Canada and Newfoundland; then we have 96 passenger vessels equipped with our apparatus; 39 English, 14 German, 9 Dutch, 6 French, 4 American, 10 Italian, 10 Belgian, 6 Canadian. Those are all first-class passenger vessels of large carrying capacity for passengers.

1313. That is the full list, is it?—That is a list of the principal stations carrying on a public telegraph service by means of wireless telegraph apparatus. Of course, we have a great number of stations—many hundreds of stations—for other purposes; but for the purposes of the question under consideration by the Berlin Conference the other stations are not relevant. A great many of the stations mentioned—stations on other systems quoted at the Conference—quoted in evidence here—are for the purposes of the matter under discussion not relevant, because they are not carrying on any public service by means of wireless apparatus. Naval stations—in Uruguay and Roumania—for the purposes of a public telegraph service are of no consequence whatever; in fact, they are not carrying on any public telegraph traffic. Again, I wish to emphasise the point that numerically we have 180 of these stations, and the most that can possibly be put forward by other people is 40 which are carrying on a public service, or endeavouring to carry it on. Our tonnage is 1,000,000; their tonnage is 182,000—mostly, as I say, coasting vessels—oil-tank steamers.

Mr. Gwynn.

1314. Forty in all other systems?—The Marconi stations carrying on a public service number 180; the stations of other systems which are endeavouring to carry on a public telegraph service—I am including such stations as Newhaven and Dieppe, which are really not doing any public service at all, but only ships' service messages—are 40.

Mr. Sydney Buxton.

1315. Does that include the public naval stations in the United States that are open to public communication?—No, it does not; I do not think so.

1316. Are not there 39 of those?—I think I had better put in an analysis of how I make up the 40 stations. (*Vide* Appendix No. 6.)

1317. That is rather important?—I will put in an analysis.

1317A. I will ask you this question as to the figures:—Are there not, as a matter of fact, 36 stations in America which are carrying on commercial business?—No, I think not. I do not know of any Atlantic liners that communicate with the American coast stations other than those fitted with the Marconi apparatus.

1317B. I have got here the Official United States Naval Wireless Telegraph Service, in which they give a list of the stations, which are 36 open to public communication?—So they may; there is a station at Ushant and another station in France, and they have been "open for public communication" for several years.

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years, and the French Government has announced that they are open for communication; nevertheless there was a strong protest in the French Chamber against the expenditure on the stations, and against the announcement that they were open for public traffic, because they were not doing any public traffic. There were French stations, but there were no ships wishing to communicate with the French stations; all the ships passing down the Channel were fitted with the Marconi apparatus.

1318. I am speaking of American stations?—In America they schedule a great number of stations as open for traffic, but no ships communicate with them, and no public traffic is being carried on of any consequence.

1319. Is that so as regards the station at Nantucket?—We had a station at Nantucket; the German Government protested against it because we would not communicate with ships fitted with other systems. We pointed out that there were no ships fitted with other systems, either German or anything else, requiring to communicate. We were requested to take our apparatus off the Nantucket lightship; we took it off, and erected a station farther north, and there we are doing the traffic.

Mr. Arthur Lee.

1320. Is that Sagaponack?—No; Sagaponack is another station.

1321. Sable Island?—Sable Island is a station really on Canadian territory with a very long range; it takes a lot of the Atlantic liners; a lot of the Atlantic liners send messages because they go north and pass within range of it.

1322. I ask the question, because the other day I was on a German liner and was told that I could not send a message except through Sagaponack?—Sagaponack is one of our stations; and another one is Siasconset. In addition to those we have Dock Station in New York, Seagate, Babylon, Cape Cod and South Wellfleet; there are seven stations altogether in the United States.

Chairman.

1323. You contend that none of those stations are doing public business?—No.

1324. You admit that they are all open to do public business?—The suggestion rather was that they were open to do public business, but my point is that they are not carrying on any public telegraph service by means of wireless apparatus.

Mr. Sydney Buxton.

1325. Does that apply to the Nantucket station as well as the others?—Nantucket carried on a very considerable service before we had our apparatus shifted.

Mr. Arthur Lee.

1326. Do I understand that the German vessels, for example, do not communicate now with Nantucket?—No, they do not; they communicate with the station we put down north of it in the United States and also with Sable Island which has a very long range.

O.G.

Mr. Adkins.

1327. What is the name of this other station?—The name of that station is Siasconset.

Chairman.

1328. Can you tell the Committee the reasons that justify you in the policy your Company has laid down?—Before I go to that, Sir, may I point out these figures once more?

1329. As shortly as you can?—Our stations are 180.

1330. You are going to have an analysis made out of those, are you not?—I am going to analyse the 40. Our tonnage, 1,000,000; their tonnage, 182,000. Our carrying capacity for passengers, 3,000,000; all other systems, 179,000. The number of words sent or received by us last year, 1,261,000; and the percentage of error is 42 per cent. per word sent calculated throughout the whole service.

Mr. Adkins.

1331. One word in 200, then?—One word in 240—yes. That is due to wireless errors; that does not include the land errors. There are a certain number of land errors.

Chairman.

1332. Now will you explain to the Committee the question I asked just now—the reasons that justify you in carrying out the policy of your company?—I think the policy is justified to a certain extent by the results. We have been at a very great disadvantage—we were unable to get licences on foreign territory; foreigners could come here without licences. We have got all the first-class liners, and we have got them notwithstanding the fact that their Governments have put a good deal of pressure upon them not to adopt our system; the German Government has pressed the German shipping companies, the French Government has pressed the French shipping companies, and the same thing has happened in other countries. Before the Bill of 1904 of course anybody could establish stations here; we have established the business and have got all the business in consequence.

Mr. Adkins.

1333. Might I ask for how long you have these companies—for how long have you the German and French companies?—Shipping companies?

1334. For how long?—The Hamburg-Amerika we have for 10 years; the North German Lloyd we have certainly not beyond 1908; the German Government has already been in communication with the North German Lloyd with a view to the termination of that contract; most of the shipping companies' contracts are for comparatively short terms.

Mr. Arthur Lee.

1335. If the Convention is ratified does it affect those contracts?—If the Convention is ratified, the Hamburg-Amerika contract stands. I do not know how they are going to adjust matters; the Convention imposes an obligation to intercommunicate, and we do not agree to intercommunicate.

1336. Are not they bound under Article 1 to insist on intercommunication—each country that ratifies the Convention?—Each country has to insist on intercommunication. On the other hand,

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hand, they have a contract with us (the Hamburg-Amerika) for ten years, and we do not agree to intercommunication. They agree to our working the ships in accordance with our rules and regulations.

1337. Would not these other companies that have not got these long periods of agreement be bound to accept intercommunication?—Undoubtedly—all those countries that ratified, of course.

1338. I am assuming that?—That they ratify?

1339. I am assuming for the moment the ratification on the part of the other countries, and not on our part?—Yes, I follow.

1340. Would not all those countries that own the French, German and other ships which you have mentioned, ships belonging to the countries that ratify, be obliged to accept intercommunication?—At their own stations presumably, on their own coasts, and with ships of their own flag if ship to ship intercommunication is going to be compulsory.

1341. Then, though you may have these ships at present, they would cease after that to be "Marconi" in relation to intercommunication?—On their own coasts and with ships of the same flag.

1342. These ships you have mentioned?—Unless, of course, those countries reserve the right of exemption.

1343. None of the countries mentioned have done so?—A number of countries reserve the right of exemption.

1344. Not the countries you particularly mention?—The French Government has, for instance.

Mr. Adkins.

1345. The French Government has, but not Germany?—They have the right to exempt certain stations from intercommunication.

Mr. Sydney Buxton.

1346. The German Government has not?—No, the German Government has not, certainly. There is the general right of exemption, but certain States renounced the advantage at once.

Mr. Arthur Lee.

1347. I understand your position is this,—that whilst these ships—say the Hamburg-Amerika—may be forced to intercommunicate, that will not deprive you of your right to a civil action against them for breach of contract?—No, that would be the position, certainly.

Mr. Sydney Buxton.

1348. Where they are under agreement, would you apply that term to your own agreements?—Certainly.

Mr. Adkins.

1349. But, subject to your right of civil action according to the laws of these respective countries, your control of these lines would come to an end if they adhered to the Convention?—Unless we entered into communication on their territories, or their Governments allowed them to be exempted from intercommunication—under the reservation of the right of exemption.

Chairman.

1350. Can you explain shortly now to the Committee the reasons that justify you in carrying out the policy of non-intercommunication?—First of all we have got a good deal of authority for it. Lloyd's entered into a non-intercommunication contract; the Admiralty entered into a non-intercommunication contract. The Admiralty contract of 1903 provided that if they worked with ships of the mercantile marine from their stations they would only communicate with ships fitted with the Marconi apparatus.

1351. Can you show how that would be to the public interest as apart from the individual interests of your company?—Yes. May I just quote the various authorities?

1352. I want you to answer that question first?—"The public interest": Intercommunication is an impracticable scheme in the first instance; it must result, in our opinion, in the disorganisation of the service altogether; it is therefore contrary to public interest to have intercommunication; there is no public service in the world carried on on the principle upon which this Convention service is based. A public service involves the principle of centralised control—the service provided for by the Convention involves working by governments or companies or private individuals at the coast stations, and by shipping companies or wireless companies on the ships, or by private individual; it involves competition and common use. A similar service was proposed with regard to the railways. When powers were first conferred upon the railway companies they were told that the railway lines would have to be highways, and that anyone must have a right to run a train over the railway lines. Of course that has been found impracticable.

1353. That is hardly an analogy, is it?—It seems to me it is an analogy which is rather in our favour than in favour of the argument on the other side, because it is practicable to prevent a train from crossing over a line by physical means if it does not obey the service regulations. There are the service regulations, and, in addition, if they are not observed the train can be prevented from passing over the line. Whereas there are no physical means of excluding a wireless message from a station if the operator chooses to disobey the regulations; the man at the coast station cannot possibly prevent the message from being transmitted; therefore, the whole service—as some of the other witnesses have pointed out—depends upon adequate control and control over a number of miscellaneous elements.

1354. But the difficulty of identification is not an insuperable one, is it?—No; not the question of identification. Take a concrete case. Assume two ships simultaneously within range of the same coast station—say, a French ship worked by our French company and a Belgian ship worked by our Belgian company—They are simultaneously within range of an English coast station, the coast station controls the order of the messages; it says: "I will take the French company's messages," and it tells the other ship to "stand by." If the other ship chooses to continue to send its messages—if the Belgian ship chooses to continue to send

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—the French ship cannot transmit its messages at all. There is received on the tape, or on the telephone instrument, a jumble of the two messages, and as there is competition between the two the chance of a breach of the regulations is very much increased. We have had a similar difficulty to deal with ourselves. We have had conflict at the coast stations between ships worked by different companies—French, Belgian, German, and American; and although the managers of the companies recognise the necessity for cordial co-operation there is such an element of competition between the operators that it may come to pass that a Belgian company's ship and a French company's ship may be simultaneously off the Lizard, and that they will not obey the regulations. Complaints would be made to us, but it would be difficult to fix responsibility for error. They would say: the call station did not reply—that they did not hear the order to stand by. We have eliminated that difficulty by introducing a bonus system under which the operators receive a certain bonus on every message—every word sent—provided that every rule and regulation has been observed. If a man has a thousand messages to send—a thousand words to send—they represent to him a certain bonus if he obeys every rule and regulation; but if he does not obey every rule and regulation he stands a chance of reprimand or of dismissal, as well as the loss of his bonus.

1355. Surely identification is assured. If you substituted for the bonus a strict regulation which must be complied with by all countries, surely the same result would be obtained?—We have strict regulations in our existing service, but although all our associated companies are controlled by the parent company (Marconi's Wireless Telegraph Company, London) we have had to introduce in addition the bonus system to counteract the element of competition between the operators of the different companies. It seems to me that the principle on which the conversion service is founded is a bad one. Conceive a telephone service so constituted that A can communicate with B direct without the intervention of an exchange, notwithstanding the fact that B is talking to somebody else—I can call you up when you are speaking to somebody else, and every other person can call you up and speak to you without the intervention of an exchange at all; but there are certain rules and regulations that we are not to talk when you are engaged.

1356. Even with the element of licence?—Yes, even with the element of licence.

1357. Would not that have some influence?—It would have some influence, certainly, but it is very difficult to bring home the responsibility.

Mr. Lambert.

1358. Supposing I were telephoning to you direct and found I could not make you understand, should not I be rather a fool to go on doing it?—Suppose you ring up the exchange and they tell you that the man is engaged and you feel impatient and ring again, that ringing does not prevent existing communications. Suppose anybody can ring you up direct when you are speaking to somebody else, and that every-

Mr. Lambert—continued.

body is in that position, surely there must be confusion; and it seems to me that the natural remedy would be to entrust the transmission of messages to some organisation which had an interest in the combined traffic, and to say: We will not transmit messages ourselves at all; the principle on which this service is constituted is such that there must be confusion owing to the element of competition; therefore, we will entrust the transmission to some company which has an interest in the combined traffic. Mr. Babington Smith, at the Conference, expressed similar ideas. He pointed out the drawbacks of a general exchange, and said:—"Let us take an analogy"—page 58 of the *Procès Verbaux*.

Chairman.

1359. You are bound to have difficulty either way. If you could have a complete monopoly you could remove most of the difficulty, I take it, by your bonus system or some other?—Centralised control; I do not say complete monopoly, but one control over all the stations corresponding.

1360. It is practically the same thing, is it not; but you have not got that and cannot have it?—We have it now at this moment in all our stations administered by us.

1361. Within your own circle?—Within our own circle—yes.

1362. You have not got it as to the rest?—We have a number of stations—Egypt, Canada, America, the Argentine, China.

1363. And as you have not got it, is it not better that some strict form of regulation should be introduced with penalties resulting than to have confusion and interference?—We have the regulations and the penalties in our service—a service constituted and carried on in accordance with usage in all public services. Supposing that the Inland Telegraph Service were carried on by co-operation of members of the public, there would be bound to be confusion; if anybody could pump his messages through a cable there would be confusion.

Mr. Lambert.

1364. Does not your evidence point to the necessity of Government control—centralised control?—It points to the necessity of centralised control, but I do not see that you can secure it in wireless service by Government control.

1365. I mean you cannot imagine that such an important matter as wireless telegraphy can be left in the hands of one monopolist company, can you?—Not one company, but a few companies properly organised for carrying on a public telegraph service, not a service carried on by co-operation of the users—that is what this convention provides for—co-operation of a number of miscellaneous users—shipping companies, wireless companies, Governments of different States,

Chairman.

1366. Will you show the Committee how you would get a private organisation with a policy of non-intercommunication—how would you attain that object?—We have attained it now; we have an organisation comprising a number of coast stations and a number of ship stations, all worked by our own operators.

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1367. I am referring specially to other companies who, under your present policy, do not intercommunicate?—There are not any companies carrying on this public service at all. There is not any company carrying on an extended public service by wireless telegraph apparatus.

1368. That is not borne out by the evidence we have received?—No proof has been given of any business.

Mr. Gwynn.

1369. Would you say that the proof is that you have attained a very high standard of accuracy in the transmission of your messages, as indicated by figures; is not that proof that the interference at present is not serious?—Yes.

1370. Whether that be so, or not, the point is that it is open to public communication, and of course there might be development in the future?—Assuming that there were developments in the future how would you get the organisation that you desire with a policy of non-intercommunication. I mean development in the future on the part of these other companies?—They would have to operate in particular spheres. At the present moment there is this coasting service in the United States—they do not clash with us, and we do not clash with them; there is nothing to prevent the German Company from organising a wireless service in the German Colonies; in Togoland or Damaraland; and in places of that sort.

Chairman.

1371. Assuming that there are other commercial companies already started or that will be started to carry on public commercial wireless telegraphy—how, under those circumstances, are you going to prevent interference with our stations except by an International Agreement?—We can do it in various ways—by tuning, and by the fact that it is not open to people to erect stations in all places. At the present moment on the Channel we have got all the stations except those for the Newhaven-Dieppe service, and it is not practicable for a person working in France to interfere with us. The Admiralty witnesses say that they experience great interference; I do not quite understand why they have not called upon us in the terms of our contract to avoid interference with them by our own stations and to provide them with means for preventing interference with other stations.

Mr. Sidney Buxton.

1372. Assuming that this country does not ratify and that other countries do, would it not be practicable to erect stations on the French or Belgian coast?—It would not be practicable in my judgment to interfere with our stations—the English stations—by means of stations on the French coast. There are stations now on the French coast; there is one at Ushant, and one in another place; they do not interfere with our service; and all this disturbance of service spoken of all round the North Foreland does not particularly affect us. I have just pointed out that the transmission of messages, received and sent is 1,260,000, and the percentage of error is

Mr. Sidney Buxton—continued.

decimal 42. That shows that there is not a great deal of disturbance.

1373. I thought your evidence had been up to now to show that the great danger of interference could only be avoided by an organisation such as yours?—No, I am pointing out the impossibility of carrying out the service on the principle of common use of certain stations by competitors—competition and common use. If we were to agree to intercommunication and to allow anybody to send messages to our stations—encourage them to instal apparatus on ships on the ground that they would have the use of our stations—there would be confusion at our stations in the competition for the use of the stations; we should have no control over the operators, and confusion must result. At the present moment there is no confusion. We control the operators, and such small element of competition as there exists is eliminated by the bonus system. The operators on our French and Belgian Companies' ships are really controlled by the parent company, but there is a small element of competition because they imagine they belong to different companies, and that element of competition is eliminated by the bonus system.

Chairman.

1374. You have control in that way as a company; the Convention proposes to control by regulations?—We have regulations, but the same regulations applied to half-a-dozen differently controlled ships, simultaneously off the same coast station will not prove effective. The regulations may be exactly the same in each case. The same regulations that are adopted by a railway company for running its trains might be imposed upon a number of members of the public who had the right to run trains over the lines; but there would certainly be confusion. In the case of tramway companies it was originally proposed that anybody should have a right to run flanged-wheel vehicles on the lines. If this regulation, which is in accordance with the principle upon which the Convention service is based, had been applied to companies running traction systems it would have resulted in confusion, because of the number of different interests involved.

Mr. Gwynn.

1375. Would you put it in this way: You might be prepared to consider intercommunication if there existed another organisation similar to yours; but that your objection is to intercommunication with a number of promiscuous users?—The greater the number of authorities the greater the difficulty. Suppose there was a Telefunken Company properly organised for carrying on a public telegraph service, and ours, and we made common use of the same stations, there would not be the same difficulty as there would be if the operators on the ships were subject to a dozen distinct authorities.

1376. It is not, as I understand, the control? That would be simply this—one ship belonging to Belgium which might be signalling and a steamer belonging to France which might be signalling—your difficulty would be to identify first the steamer and then to make representations

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tions to the Belgian Government and to the French Government?—Yes, certainly.

1377. And your machinery of control would only be attained by representation to a number of different Governments?—Yes; we should represent to the English Government; they would have to represent to the French or the Belgian; and they in turn would have to communicate with the shipping companies, and the shipping companies would have to deal with their operators. It is a clumsy machine anyhow; but putting that aside altogether, by the Convention you cannot eliminate the principle of competition, and I submit to the Committee that competition and common use under such circumstances that one person who is sending a message can prevent another from sending one altogether are impracticable; the two things are irreconcilable—competition and common use.

Chairman.

1378. I think we have exhausted that point now; is there anything more you wish to say about it?—Simply to point out that the most striking instance of an International service is the cable service, and the cable service is not carried on by the co-operation of Governments, but is carried on by private companies. The alternative is one Government working cables not only in its own territory but in foreign territory—obviously impracticable—or one government working one end of a cable and another Government the other end. The cables round the coast are worked in that way. Take the case of London and Amsterdam—the service between London and Amsterdam; the arbitrage dealers who deal in the differences of prices in stocks send their messages from London to New York and from New York back to Amsterdam, by the Companies' cables, paying 2s. a word for their messages against 2½d. by the direct Government line—4s. for the reply—because the service is so slow. Making all due allowance for the relative inefficiency of a Government service as compared with a commercial service, it must be concluded that the defects of the Government service are largely due to the division of authority. The cable is in joint ownership and the result is that everybody who wants to do quick work between London and Amsterdam does it by cabling to New York, and from New York back to Amsterdam. The same thing occurs between London and Paris. The cable is jointly owned and jointly worked I believe by the French and English Governments; at any rate the arbitrage dealers do not send their messages straight across the Channel; they send them from London to New York and from New York to Paris by the Cable Companies' lines, paying 2s. a word instead of the lower charge. It is common knowledge.

Mr. Sydney Buxton.

1379. Is it not a fact that the Cable Company has got an office in the Stock Exchange itself, and that the Post Office has not?—I have been alluding to London and Amsterdam.

1380. London?—One of the Cable Companies

Mr. Sydney Buxton—continued.

has an office quite close to the Stock Exchange, but it is an arrangement made by a commercial company.

Chairman.

1381. Now I think we might proceed to ask you to give us your general criticisms on the Convention. Will you take your points in categorical order and give them as briefly as you can to the Committee?—In the first place it seems to me that the object of the Convention, alleged by Germany to be to secure satisfactory regulation of wireless telegraph traffic, was in fact intended, as Germany has pointed out in diplomatic notes, to prevent the establishment of what they call "the British monopoly through the operations of the Marconi Company;" and, secondly, the attempts made by a number of the Powers to carry on a public service in accordance with the provisions of the Convention have had no result whatever. All the Powers in 1903, except England and Italy, agreed to this scheme in principle, and they passed certain regulations. Since that time a number of them have been trying to put the scheme into practice. The German Government, the French Government, the Netherlands Government, and the United States Government have made some effort to organise a service, but it has produced no result. The shipping companies insist on keeping the Marconi system, not because they think the Marconi system, *per se*, is so much better than any other system, but because they consider that our method of working is the only practicable one.

1382. How do you mean—has not produced any results in the operation of it?—None of them have adopted the service. The German Government put down German stations, and the German liners took "Marconi"; the French Government put down French stations and the French liners took "Marconi"; the same thing happened with regard to Holland and the United States. There are a number of stations "open for telegraph service," as the U.S.A. Weather Bureau states, but all the liners keep ours; we have 96 passenger liners—I think there are about 70 crossing the Atlantic—and they all use the Marconi system. The attempts of these Governments to organise a service in accordance with the terms of the Convention of 1903 have not resulted in anything at all.

1383. Your non-intercommunication policy has been successful to that extent?—Yes. Then there is authority on the subject. Because the Italian Government made the exclusive working agreement with us, pressure was brought to bear upon Italy to vary the terms of the agreement. We offered to cancel the contract, and the reply of the Italian Government was that they refused to be released, pointing out—well, they realised that intercommunication was impracticable. The Canadian Government takes a similar view; the Newfoundland Government takes a similar view; the Admiralty took this view in 1903, when they made their contract with us for non-intercommunication, and they took the same view up to the very eve of the last Conference; Lloyds' took that view when they made their contract with us; and all the shipping companies.

1384. What

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Chairman—continued.

1384. What effect will the Convention have upon your patents in your judgment?—We have a number of opinions on this subject—that intercommunication would prejudice patent rights. It seems obvious. You cannot sell another man's goods, and then take an action for infringement of patent against him in respect of those goods which you sell; you cannot make a working agreement with a man and send your messages to his station and receive messages from his the station and then bring an action against him for infringement of patent in respect of the apparatus he employs. However I am merely putting before the Committee the common-sense aspect of the question. We have had a great number of opinions from many very eminent lawyers upon the subject, not only in England but abroad, and they all take the same view. I propose simply to read one opinion. Mr. Warmington, K.C., and Mr. Astbury were asked this question: "Would the Marconi Company probably fail, or at any rate be seriously prejudiced, in an action brought by it for infringement of its British patents against users of infringing apparatus and stations, if such users were able to show that the Company had itself, otherwise than in cases of emergency, *e.g.*, ships in distress, made a practice of communicating by wireless telegraphy with ships or stations fitted with such infringing apparatus, or had knowingly allowed its licensees to do so? In our opinion this would certainly be the case.—'C. M. Warmington,' 'J. M. Astbury.'" The same opinion has been expressed by a very great number of counsel, and I have never had a considered opinion of any counsel to the contrary.

Mr. Sydney Buxton.

1385. That question, I take it, means that they have voluntarily made a contract to communicate?—Whether voluntarily, or under compulsion, does not arise at all.

1385*. Well, that is a matter of opinion?—There is no compulsion. Under the Convention there is no compulsion—you are not bound to work your patents at all. You can hold your patents inviolate and not work at all.

1386. I mean under Section 10 of the Agreement?—The Post Office agreement with us?

1387. Yes?—I am not considering that yet; I am coming to that later. The point I wish to make is that intercommunication does prejudice patent rights; and I have never yet known any counsel give a considered opinion to the contrary.

Chairman.

1388. Do you consider that the Convention will have any retarding effect upon technical development in the future?—Yes, I do. Before you can introduce any improvement which involves a change of the wave length, it is necessary to get the consent of all the Governments concerned; and that is a very unsatisfactory process of introducing improvements.

1389. Now can you give justification for your hostility to the Convention from the standpoint of British industry?—We are the pioneer company; we have spent about £700,000 in developing this business. It is commonly made a

Chairman—continued.

reproach against British companies that they are less enterprising than foreign companies—that if they were more enterprising they would not feel the effects of foreign competition so much. In this case we have acquired the best inventions; we have established the business, and we have established it under very considerable disadvantages. As I say, foreigners were free to establish stations here up to 1904; we were not free to go abroad and do the same. The German Government has given the German Companies very strong diplomatic support, and our own Government here has not given us any diplomatic support at all; on the contrary, it has hampered us in the sense that it has continually taken action to try to bring about this intercommunication which we say is destructive of any good working. I cannot see that the British Government has any interest to deprive a British Company of the position which it has gained in open competition—and fairly gained. It has not really been an "open competition," because the other people have had certain advantages; we have had certain disadvantages. It has been suggested that our position is due to the protection conferred by the licence in 1904. Up to 1904 anyone could establish wireless telegraph stations in England, and even in 1903 the German Government were drawing attention to the Marconi monopoly. At that time we had got all the business. It can hardly be contended that our position at the present day—which is admitted to be better than that of other companies—is due to the licence granted to us by the Post Office in 1904.

1390. Then will you tell the Committee your objection to it from the standpoint of British Imperial Defence?—It seems to me that there is great advantage from the standpoint of defence in a large network of stations under British control. We have got all these liners; the apparatus is ours on the ships; the operators are ours; the shipping companies are not concerned with what we use; they are only concerned with the transmission of passengers' messages and in getting their service messages satisfactorily transmitted; and it seems to me that there is a great value in this large network of stations under British control; and the fact that they are under British control limits the knowledge of wireless telegraphy by foreign powers. It is a case of the pilots over again; there are a great number of foreign pilots, I believe, licensed by the Board of Trade; and a man who is bringing a ship every day into an English port must get information with regard to that port which he would not get simply from charts.

1391. Have you got any other general criticism to make?—It seems to me the principle of one State one vote at the Conference is a very inequitable one. No account is taken of the relative importance of the maritime interests of the various states—Roumania, Montenegro, and Monaco have the same vote as Great Britain; and there is no disputing the fact that the final arbitrament is the vote. The first vote was always given by Germany on all questions; she came alphabetically first; her vote was a signal to a number of these smaller

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smaller Powers, which had no maritime interests, to vote in accordance with the arrangements which she desired.

Mr. Arthur Lee.

1392. I presume the vote of Montenegro was not affected thereby?—No, it was not. Then there is the question of the Colonial representation. One colony I know asked to be represented at the Conference, and was not allowed to send a representative.

Chairman.

1393. Which colony was that?—New Zealand. Then it has been said that the Colonies were consulted on the subject. Of course we have only information from our agents who have approached the Ministers. Sir Wilfrid Laurier has been approached on the subject; he says he has not been consulted with regard to the matter, and he takes the view that it is necessary to have one system in general use—at any rate, in Canada. Of course the Canadian experience of wireless telegraphy is very much larger than that of any other Colonial Government. There are no Colonial Governments carrying on any extensive service of wireless telegraphy other than the Canadian Government and the Newfoundland Government. The Newfoundland Government were the first to take up "wireless," and we cannot hear that they have been consulted. With regard to the Natal Government—Mr. Maydon says that he went out of office in December of last year, and up to that time he was not consulted; and under no circumstances would he have agreed to this convention so far as Natal was concerned—intercommunication. Then I have communicated with our agent in Australia and New Zealand, and they say the same thing; they have not been consulted. Their opinion is not quite so valuable as the Canadian and Newfoundland because they are not carrying on any service. Then the views of the Canadian Government have been formally expressed before on this question to the Post Office. Mr. Prefontaine, the late Minister of Marine, wrote a letter to the Post Office on the 18th December, 1905, in which he said we had no exclusive licence in Canada, but it had come to this—it was not convenient to have a number of different systems competing, consequently he considered it was best to have only one system in general use. (*Letter handed in.*)

1394. Have you got any further criticism to make from the Colonial point of view?—Colonel Daniell in giving evidence said he could put it in a nutshell:—We asked for seven votes for the Colonies and we have got six. Well I cannot agree that that is a correct statement. I understood the demand to be definitely for seven votes for the British Colonies, and "Colonies" were defined as self-governing colonies. The Conference agreed that no country should have more than six—that that should be the maximum number—the Colonies to be of any description, self-governing or otherwise—therefore Germany might have for Togoland and Damaraland two votes as against Australia and Canada for England. The Colonies

Chairman—continued.

have not got six votes. The question of what Colonies shall be admitted at the next Conference is submitted to the votes at that Conference, and that Conference will be constituted as the last one was presumably—a large number of minor states with no maritime interests who will have a vote on the subject.

Mr. Gwynn.

1395. You mean the British demand was that Great Britain should have seven votes and Germany should have one in fact?—No. Great Britain asked definitely for seven votes, I understood, for her Colonies.

1396. That Great Britain, then, should have eight votes and that Germany should have one?—No. She asked for seven definitely for her Colonies. I suppose in reference to the important self-governing Colonies.

1397. I want to find out how far the original demand of Great Britain squared with the actual result. I understood you to say that Great Britain demanded first of all that votes should only be given in respect of self-governing Colonies—that there should be a vote given in respect of every self-governing Colony—that there should be seven votes given for seven in the case of Great Britain. The way that that would have worked out would be that Great Britain would have in the Conference controlled eight votes, whereas Germany, if the Great Britain position was conceded, would only control one; in the result Great Britain is limited to six, and Germany—because of the provision that Colonies need not be self-governing—may have more?—That is how I understand the matter—yes. Germany may have six, because the "Colony" is not defined as self-governing; and England may have six for "self-governing" or anything else. The original demand was for seven votes for seven self-governing Colonies.

1398. As regards the question of the proportional strength of Great Britain as compared with the other Powers in the constitution of a future Conference, you think that Colonel Daniell in his answer, or Mr. Babington Smith in his answer, has overrated the approximation of what Great Britain obtained to what Great Britain demanded?—Yes, Great Britain demanded seven definitely; she has not got any; she demanded them for self governing Colonies.

Mr. Lambert.

1399. Do you really mean that Great Britain has not got "any" votes—definitely?—Not for the Colonies; it is simply agreed that no State shall be entitled to more than six votes for its Colonies, and "Colony" is defined so as to cover "self-governing" or otherwise. Therefore Germany can have for, as I say, Togoland and Damaraland, two votes, as against two votes to England for Australia and New Zealand; and, secondly, before our Colonies can get any vote at all they have got to accept this present Convention as it stands; they have got to agree to the Convention as it stands—become elected, as it were, to a vote, given a vote—and then apparently they stand their chance of securing modifications.

1400. Then

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Mr. Lambert—continued.

1400. Then they are not obliged to go in?—They are not obliged to go in—no.

1401. They naturally would not have the vote if they were not interested—they would not want one?—I am rather discussing this from the standpoint of the origin of the Convention. The Colonies had no voice at all in the constitution of the original Convention, and before they can express their views on the subject at all they have got to take this thing as it stands. The British amendment looks as if the British Delegates asked that it should be permissible for a country to have seven votes; it does not ask definitely for seven. That is a mistake I apparently made there. The form of the amendment suggests that they simply fixed the maximum at seven.

Mr. Sydney Buxton.

1402. You are wrong in the figure, you mean? No, I understood the English Delegation to ask definitely for seven votes; and apparently this amendment merely suggests that seven should be the maximum for any country—that they were to be for self-governing colonies; and of course no other country has any self-governing colonies—other than England.

Chairman.

1403. Seven would be the maximum?—Yes.

1404. And they would not be dealt with according to the colonies the respective countries possessed?—Yes, which, in some cases is practically nil; Germany has no self-governing colonies for instance.

1405. Have you any other points to deal with?—It seems to me that the companies concerned in this matter ought to have had some representation at the Conference. The Conference was called to deal with an existing business; I think we certainly ought to have had some representation at the Conference. We asked to be allowed to be represented, and the Foreign Office refused. We pointed out that at the International Telegraph Conference cable companies are always represented; they have no vote, but they have a right of discussion—to take part in it—and they are not even bound by the conclusions of the Conference; they are not bound to adopt them. This is a Conference called (as one delegate said at the Conference) to get the Marconi business; and it seems to me that the Marconi Company ought to have been officially represented at that Conference, and was entitled to have a representative there.

1406. Did you make the same claim at the former Conference, too?—No, we did not; we knew that that Conference was only to be recommendatory. The English Government only accepted the invitation to the Conference on the understanding that the delegates should not have power to bind their Governments, but merely to draw up a schedule of recommendations; we knew nothing could take immediate effect from that. Then there are a number of points which the British delegates urged at length which they did not carry. They asked that each State should reserve to itself the right to exempt certain stations. If they were holding any sort of brief for a British company in

Chairman—continued.

this matter, it was very important to secure the adoption of this Article by other Powers. Germany immediately retaliated with a declaration that “the following Powers” would not exempt stations. The exemption Article was put in, but immediately afterwards Germany proposed a resolution, which took the form of a declaration, signed by a number of the Powers that they would not exempt. Well, this right of exemption of certain stations would have secured our position in a great many foreign countries, and that was not insisted upon by the English delegates and not secured. It was also proposed that there should be an extra rate for messages from a ship passed to a coast station not on the same system; and it seems a very fair thing that a Company which has a very large number of points available for communication should receive a benefit in this matter, greater than is received by a man who has no points at all. Where you have an exchange, the value of the exchange is very largely represented by the number of points; one man has 200 points—say 200 telephone subscribers; the other man 10. It is quite clear that no one would subscribe to the Exchange with only 10 subscribers, and the man with 200 subscribers would not amalgamate with the man with 10 subscribers without some compensation; so there ought to have been provision for some compensation payable by foreign companies. Then on the question of intercommunication between ships, the Admiralty delegate pointed out that the greatest interference and confusion is caused by the ships working with one another—interference with other ships, working with the coast stations. Great Britain is not going to enforce intercommunication with ships at sea on the ground, it is now said, that ships cannot be compelled to communicate with one another even by flag-signal. (I do not follow that reasoning, for equally ships cannot be compelled to communicate with the coast by flag-signal.) However that may be, the British delegates say: “We are not going to enforce intercommunication on British ships”; but the other Powers are going to enforce intercommunication between their ships, and our service from our ships to coast stations will be interfered with in the Channel every bit as much whether a couple of American ships or a couple of German ships are sending messages to one another as it would be if they were English ships. It is one of the examples of the form of the Convention which is disadvantageous to England and advantageous to Germany. Germany procured the other Powers to agree to arrangements which she wanted. England secured the expression of her views by way of reservations—reservations which were not accepted by the other Powers. There is no particular advantage from the standpoint of avoiding confusion in agreeing that England would not enforce intercommunication on British ships. It is necessary to consider the confusion which would be caused by foreign ships intercommunicating.

Mr. Arthur Lee.

1407. What then do you consider that England should have done in that particular?—

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Mr. Arthur Lee—continued.

It seems to me that the English delegates had an exceedingly easy task. Germany has pointed out that in this matter England is essential. "Where is there a point except on British territory," &c.

1408. I am afraid that is not my question. I am simply asking you with regard to the compulsory communication question?—They should have said: We must have this thing embodied in the Convention; 'no compulsory intercommunication with ships because it will interfere with our service on the coast, or we cannot sign the Convention.' It seems to me the British delegates could have made any bargain they chose. It is quite obvious that the British Empire in a matter of this kind is of very much greater importance than Roumania, Uruguay, Germany, or even France, Spain, and Holland. Another thing asked for at the Conference by the English delegates was protection for patentees. The effect of the discussion was: only the Marconi Company attaches any importance to this protection; that is to say only the Marconi Company has got any patents of value; and the proposal was rejected.

Chairman.

1409. I think that has taken you through the whole of your list of objections has not it?—Yes.

1410. Do you believe the British delegates might have prevented any Convention?—Yes, I certainly do think so.

1411. Will you give your reasons for holding that view?—Of course I had an opportunity of discussing the matter with a great number of delegates at the Conference; the Italian—the Russian—a number of the delegates expressed the view that the Convention altogether was an absurdity—that the principle of intercommunication was utterly impracticable.

Mr. Lambert.

1412. What delegates expressed that view?—The Russian delegate. I am not speaking of the official view of the Russian Delegation, but one of the representatives of the Russian Delegation expressed that view to me. The Italian Delegation as a whole, regarded the thing as ridiculous. The principal Japanese delegate expressed the same view, and even the French delegate, Mr. Bordelongue, who took such a very strong part in the previous Conference, admitted that there was no public service in the world carried on on the principle proposed by this Convention. There is not one, and there never will be. There is no extended public service in the world involving the use of specialised apparatus, carried on by co-operation among competitors making common use of certain apparatus.

1413. And the Russian, Italian, Japanese, and French delegates all, either privately or publicly, communicated that to you?—Privately communicated to me, and the views of the States are in certain cases very much stronger than the views of the delegates. There has been a committee appointed to consider this question in a certain State, and the delegate to the Con-

Mr. Lambert—continued.

ference was instructed to draw up his views on the Convention—his justification of the Convention. The comment of the minister for whom he prepared this memorandum was: "Very good reasoning for a departmental official, very bad reasoning for a Minister"; and various governments certainly would not go so far as their own delegates, and even some of the delegates were not in favour of the Convention.

1414. I do not follow this. Do you mean that the delegates would oppose the instructions with which they were accredited?—No, their attitude was this. This thing does not matter very much to us; this is primarily a matter for Great Britain. For instance, Russia—she has no mercantile marine at all. The Russian delegate said to me it did not matter in the very slightest degree to them whether the Convention was signed or not; it did not affect them and could not affect them, he said, on the general question. They regarded the whole thing as absurd—very foolish—from the standpoint of Great Britain because of her peculiar interests, and they regarded the general scheme of intercommunication as impracticable. It did not affect, however, them in the least; there would not be any intercommunication there. The same view was expressed by the Japanese delegate to me, and Mr. Bordelongue agreed that there was no public service carried on on such lines.

1415. What was the attitude of the Russian Government?—They were instructed to vote for the Convention and follow Germany, I imagine.

1416. And Japan also?—I believe the instruction to Japan was to follow England; I know that was the instruction to the Portuguese delegates, and I believe that rather a similar instruction was given to the French delegates. Of course, the Foreign Office could give certain information on that subject.

Chairman.

1417. Did Japan take any part in the Conference?—The representatives of Japan spoke from time to time; they did not take a very active part; they did not apparently attach very much importance to it; it could not affect them much; it could not affect them as much as certain other States.

Mr. Gwynn.

1418. Why would it not affect them?—There is not a large mercantile marine likely to carry on a wireless service there. This service will be principally confined to large liners; I do not see that there is likely to be a large use of wireless telegraphy for cargo boats and comparatively small passenger boats.

Mr. Arthur Lee.

1419. The cost would be too great, you mean?—Yes, and it is a special service; you have to have special men to deal with it—to work the instruments—and there are a lot of commercial questions involved apart from the mere manipulation of the instruments—all the questions of division of rates, dealing with the traffic, accounting, and so on.

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1420. Who

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[Continued.]

Mr. Lambert.

1420. Who knows—you may be able to talk by wireless telegraph—by telephone?—I cannot conceive it probable that there will ever be any physical means of excluding a message from a station while at the same time it is practicable to communicate with that station; the ship has got to communicate with the coast station, and therefore it must have the same time; I cannot conceive means by which to exclude a message and at the same time secure response to calls.

Chairman.

1421. Do not let us go back on that. I think you will find if you look at page 8 that you have practically exhausted all the points you have put down there, therefore I think you have gone through your precis?—There is a point on the question of the loss of traffic. It has been suggested that if England does not agree to intercommunication we shall lose traffic—encourage the erection of stations on foreign territory and that more traffic will pass through them. Well, experience is entirely against it. The French Government put up stations; there was a protest in the Chamber against the vote for the stations on the ground that there were no ships to communicate with those stations. It is quite clear that there would be greater encouragement to erect stations on the French coast if there were intercommunication—if all our ships would agree to intercommunicate with them—than there will be if we will not agree to intercommunicate. It seems to me there is greater encouragement for the erection of stations on foreign territory if there is intercommunication than if there is not intercommunication. At the present moment we have 70 vessels—I think it is 70—going down the Channel.

Mr. Sydney Buxton.

1422. Greater encouragement to their erection, do you mean?—Yes. If we agree to intercommunicate.

1423. Why?—Because they would become useful. At the present moment they are valueless. The French Chamber protested against the vote for the French wireless stations on the ground that there were no ships with which they could communicate. If we agreed to intercommunicate that ground of objection to establishing stations on foreign territory would be gone. Also in anticipation of ratification the French Government has come to a preliminary decision to erect about eight stations on the French coast. That again points to the fact that the Convention is going to encourage the erection of stations rather than to discourage it; and so far as the traffic is concerned, at the present moment no traffic goes through the French coast stations at all but all through the English coast stations; all the French liners send their messages, even to France, through English coast stations, and then on to France; and with the intercommunication they would go direct to French stations. I do not think it is a very important point, but a good deal has been made of it by other witnesses;

Mr. Sidney Buxton—continued.

and if any conclusion of value can be drawn it is quite contrary to that which they draw.

Chairman.

1424. The great majority of ships come up the Channel closer to the English coast than to the French coast, do not they?—They do.

1425. Then under an Article in the Convention they are bound to communicate with the English coast station?—No; the Article is not obligatory; the Article does not say they are bound to do so. It is a general principle that they shall communicate with the nearest station, but there is nothing in the Convention to prevent the French ship from communicating with the French coast station even if it is nearer to the British coast station, and obviously they would do that rather than send to the English coast station, and over to France by cable. If my point is going to be made, or the effect of ratification in encouraging the erection of stations in foreign territory and traffic through them, it must be concluded that ratification by England would encourage stations in foreign territory rather than the contrary.

1426. It would be asking directly contrary to one of the regulations would it not?—I think not, Sir. The Convention only lays it down as a general principle that communication should be with the nearest coast station. It is not obligatory at all.

1427. I have now asked you all the questions that suggest themselves on your precis. If you have any further points to bring before the Committee, we shall be glad to hear them?—I should like to refer to Article 30, p. 45, of the Convention.

Mr. Lambert.

1428. What are you going to say about it?—There is no obligation to send to the nearest station. The Chairman puts it to me that a ship, if it is nearer to a British coast station—even if there are French stations—will have to send through the British station. That is not so. “As a general principle, the ship station transmits its radiotelegrams to the nearest coast station. Nevertheless, a sender on board ship is at liberty to indicate the coast station by which he desires his radiotelegram to be despatched.” There is nothing to prevent —

1429. Read on?—“The ship station then waits until this coast station becomes the nearest. If this condition cannot be fulfilled the sender’s wishes are only complied with if transmission can be effected without interfering with the service of other stations,” but there is no obligation at all. There it is as a general principle.

1430. That is obligatory, is it not? “If this condition cannot be fulfilled the sender’s wishes are only complied with.” Is not that obligatory?—Is it not all governed by the first clause: “As a general principle”? That is how I read it. That is what they are to do.

1431. Surely it is fairly strong: “If this condition cannot be fulfilled the sender’s wishes are only complied with if transmission can be effected without interfering with the service of other stations”?—That is technically interfered with, is it not—technical disturbance of the station?

1432. Is

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Mr. HALL.

[Continued.]

Mr. Gwynn.

1432. Is it not this, that the object of that provision was to prevent the use of an unnecessarily high power of transmission?—Yes. I think so possibly.

1433. Practically the difference of the power required to transmit to this side or that of the Channel would not be very great?—No. That is the general principle laid down, that "The ship station transmits its radiotelegrams to the nearest coast station." I do not see anything in the article preventing the sending to other stations. I do not think the French Government, for example, at all contemplates that a French passenger on a French ship is to be debarred from sending his messages to the French coast—that he should be compelled to send via the British coast.

Mr. Lambert.

1434. Then why did they assent to this provision: "As a general principle"?—I suppose that arises because there may be a number of coast stations on the same coast, and as a general principle you are to send to the nearest station.

1435. Then why again do they assent to the latter part of the Article which does make it somewhat more compulsory?—I think they are considering here (the discussion would show it) the communication between two stations on the same coast—North Foreland, for instance, and Niton; if you are nearer to the North Foreland you are to send your messages to the North Foreland; if on the other hand you want to send them through Niton you have got to wait until you get within range of Niton (Niton in the Isle of Wight).

Chairman.

1436. I take it there must be some substance in this regulation, or it would not have been introduced?—I think it is quite clear that the French Government at any rate contemplated that a French passenger on a French ship is not to be compelled to send his messages into France via the English stations and over the cable.

1437. Is there anything more you wish to say?—I want to say something on the legal position under the contract.

1438. What have you to say with regard to the legal position?—I put in the opinion of Mr. Warmington on the construction of the Post Office Agreement, Clause 10.

1439. Have you anything further to say on that?—We have had similar opinions from another Counsel.

1440. Who?—His name is Gover. He is not a K.C.; he is a Junior.

Mr. Lambert.

1441. Mr. Warmington says here, I see, that this can only be decided by a decision of the Court?—Certainly—yes.

1442. I mean it would not be competent for this Committee to express an opinion on the subject. I begin at the fourth line: "I advise that the contention of the companies should be plainly put forward on their behalf, and in default of acceptance by the Post Office a decision of the Court should be obtained"?—

Mr. Lambert—continued.

That refers, I think, to the fact that it was "contemplated that some further and more formal documents should be prepared and executed." If this is still the view of the parties." The contract is really the Heads of Agreement. There are Heads of Agreement—there is no contract at all; and those Heads of Agreement provide for a further contract being drawn; and in his commentary upon that he says: "The Heads of Agreement are executory, and it seems to have been contemplated that some further and more formal documents should be prepared and executed. If this is still the view of the parties, I advise that the contention of the companies should be plainly put forward on their behalf." The opinion stands in Clause 1, I think.

Chairman.

1443. Have you any further points to put forward?—The Post Office has said that this "without prejudice to our patent rights" is a mere notice of no waiver of right. Well, legally it is quite impossible to give notice to A of no waiver in a contract with B. The contract is with the Post Office. There is no effective legal notice. I had an opinion on that. Counsel says: "The view expressed by Mr. Babington Smith is neither good law nor good sense. I have already expressed my view as to the true construction of Clause 10 of the Post Office agreement." That is if we cannot intercommunicate without prejudice to our patent rights we are under no obligation to intercommunicate. It is generally conceded that intercommunication would prejudice our patent rights; therefore intercommunication would prejudice us. Counsel says: If it prejudices we are not to be compelled to intercommunicate, and the Admiralty are not released from their contract of non-intercommunication nor Lloyd's. That is the legal position as we understand it.

Mr. Lambert.

1444. Then, for how long is each Government Department to be bound provided your contention is carried?—The Admiralty contract is for ten years, and it was entered into in 1903. The Post Office contract is for seven years, and it was entered into in 1904. Lloyd's contract is for fourteen years, and was entered into on the 26th September, 1901.

1445. Do you suggest that even, though this Convention was ratified, for practical purposes it would depend upon the Marconi Company as to whether that ratification could be made effective?—So far as our stations are concerned. Of course, then we come to the question of non-exempted stations. So far as the Marconi Company's stations are concerned, the view of our legal advisers is, that under the Post Office contract we cannot be compelled to intercommunicate, and we gave notice to the Foreign Office of that view before the Conference began—that we did not consider ourselves bound to intercommunicate. Then, as to the non-exempted stations, the Government pledges itself by the Convention to put down for every exempted station a non-exempted station serving the same area. That, of course, is impracticable. There

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cannot be two stations serving the same area if they have the same range. Assume, however, that they put down a non-exempted station between our Foreland Station and Niton, and one between Niton and the Lizard, and so on, the question remains to be considered, as to the patent rights in that station. The intention of the Crown in granting a Patent is to confer a monopoly for the invention. I do not think it can be contended that the Government, having conferred a monopoly for an invention has not conferred a monopoly for the application of that invention, and that it can pledge itself to put down stations involving the use of our patents; at any rate it has not been definitely shown that anyone is free to work wireless telegraphy; on the contrary, there is a very large body of opinion in a different sense. The decision in the De Forest case was a very sweeping decision in our favour in the States; all the Lodge and other alleged anticipations were considered in that case.

1446. What is the importance of the Court that decided that case?—Judge Townsend decided it.

1447. To what would that Court correspond in our English Courts?—I should like to refer on that; I could not say. They call it the United States Circuit Court, I believe.

1448. Would Judge Townsend be something the same as a County Court Judge here?—Oh, no; much higher than that. The Court is a court of high standing. The importance of the decision is that all the alleged anticipations of Marconi's patents were considered—Lodge in England, Popoff in Russia, and Slaby and Braun and all the rest of them. What De Forest had to show was that Marconi had not a good patent; he had not to show that he (De Forest) had a good one himself. That was the sole question.

1449. It was not appealed against, was it?—There was an appeal, I think, but the decision of Townsend stands.

Mr. Gwynn.

1450. Has any action been taken under that decision?—Yes, we have endeavoured to enforce the judgment; the De Forest Company has transferred its apparatus from one company to another in the States, and we have never yet got any damages out of them. Then, of course, the Government has had opinions on the patents. Before the Admiralty contract was entered into advice was taken on the subject, and, judging from the advice given to us by the experts consulted by the Government that opinion was very favourable to our patent. Then again the Lodge Muirhead Company alleged that the Admiralty's use of wireless telegraph apparatus was an infringement of the Lodge-Muirhead patents. The Admiralty did not agree, and Lodge-Muirhead asked for the permission of the Law Officers of the Crown to test the case; you cannot proceed against the Government without the permission of the Law Officers of the Crown. That permission was refused. The ground of the refusal was, presumably, that so far from Marconi infringing

Mr. Gwynn—continued.

Lodge, Lodge was infringing Marconi. If there is any fair *prima facie* case for the "Lodge" being an anticipation of the "Marconi" the permission of the Law Officers ought to have been given to test the case. So that there is a strong body of evidence in support of the contention that the Marconi patent is a good patent.

Mr. Lambert.

1451. But that could only be decided in a Court of Law, could it?—That could only be decided in a Court of Law.

Chairman.

1452. I do not think we need go further into that point?—The Convention provides for the establishing of stations which involve the use of patents which are in private ownership. That is my point; and it goes a little further; it provides for syntonized apparatus. We have the tuning patent. It has been tested in Germany and the States, where they search for novelty and utility. By the Convention everybody has to employ syntonised apparatus. This provision cannot be secured if the patent is in private ownership. Suppose the Government were to put down these non-exempted stations, it would be open to us to take proceedings against the Government. We should have to get permission from the Law Officers of the Crown, but that permission could hardly be refused apparently in view of the strong body of opinion that the Marconi patent is a good patent covering all wireless telegraphy. Suppose a licence were given to other people involving non-exempted stations we have a right of action against those other people; therefore the Government is not in a position definitely to pledge itself to the erection of non-exempted stations.

Mr. Gwynn.

1453. Is there no rival patent for syntonization?—There are a great number of patents for syntonisation. We consider that our patent covers the whole. The matter is not determined, and until it is determined the Government cannot, it seems to me, pledge itself to carry out an arrangement which can only be carried out if there is no patent.

Chairman.

1454. However, as I understand you can tell us that all your patents are in a favourable position from the nature of the inquiries you have been able to make?—From the inquiries we have been able to make, we are not bound by the Post Office contract to intercommunicate.

1455. But of course that matter can only be settled in a Court of Law. It is not the business here of the Committee to decide the rights or wrongs of that. Have you any further points to bring forward?—I would submit to the Committee that it is material to consider whether the Government can definitely pledge itself to carry out an arrangement which can only be carried out if it is definitely shewn that the patents are not

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not good. The Government pledges itself to put down a non-exempted station for every exempted station. It is not in a position to pledge itself to do that until it is definitely shewn that our patents are bad, and the very strong presumption is that they are good.

Mr. Sydney Buxton.

1456. I want to just ask you a question in reference to the position of the Colonies. You said, as I understood, that Canada had not been consulted, and objected in a way to the Convention?—That is the statement of the manager of our Canadian Company, as the result of a communication with Sir Wilfrid Laurier. He writes: "I had an interview with Sir Wilfrid Laurier, at the end of which he told me that the Canadian Government had not been consulted, as stated by Mr. Buxton, with regard to the Berlin proposals." We sent a copy of the report of your speech. He goes on: "This information coincides with that given me some time ago by the Minister of Marine, Mr. Brodeur. He was possessed of the general idea that the operation of wireless telegraphy in Canada must be restricted in the nature of a monopoly. He said that following this policy the Government had refused to grant the De Forest Company a licence for their station at Quebec." That is consistent with the policy of Mr. Prefontaine.

Mr. Arthur Lee.

1457. What is the date of that letter?—The 4th April, 1907.

1458. Quite recently?—Quite recently.

Mr. Sydney Buxton.

1459. The Colonial Office consulted the various colonies, and the answer from the Canadian Privy Council; that is to say, the Cabinet, on page 210 of the book, stated this: "The Canadian Government highly appreciates the action of His Majesty's Government in referring the Draft Convention to them for an expression of their views thereon, and that, having carefully considered the provisions they do not desire to suggest any amendments"?—He goes on to say that if asked by the Imperial authorities he would state what the experience of Canada had been, and that this experience had led them to the adoption of their present policy.

1460. Who says that?—Our Canadian Company Manager.

1461. I am reading the official answer of the Canadian Cabinet. You say that New Zealand applied for representation at the Conference, and was refused. What do you base that on?—I am not perfectly certain whether it is New Zealand or Australia.

1462. You said New Zealand?—I said New Zealand. I was under the impression that it was New Zealand. I think that Mr. Henniker Heaton proposes to offer some evidence to the Committee on the subject.

1463. You stated specifically in your examination-in-chief that New Zealand had applied for

Mr. Sydney Buxton—continued.

representation, and had been refused. What do you base that on?—I base it on a communication made to me by Mr. Henniker Heaton.

1464. You yourself have no knowledge whatever of it?—Only through Mr. Henniker Heaton.

1465. You yourself have no knowledge of it?—Except what he has told me.

1466. You yourself have no knowledge of it?—I should hardly have an actual communication from the New Zealand Government on the matter.

1467. But you stated it as a fact?—Certainly.

1468. With reference to the point you have raised about patent rights, you have handed in a legal opinion. You are aware, I suppose, that the view which the Post Office take with regard to the legal position is a diametrically opposite one?—I have heard that.

1469. We have also legal opinion in that direction?—Yes.

1470. I understand that lately your company have made an agreement with the Dutch Government under which intercommunication with Scheveningen Station, which is on the Telefunken system, and the ships of that and other countries, will be received at the Marconi stations?—We have not made the agreement. It has been made by the Belgian Marconi Company.

1471. You have the control of that company?—We have the control of that company.

1472. It is an agreement practically made by the Marconi Company?—It is made by the Compagnie de Télégraphie sans Fil of Belgium. We control that company.

1473. You are parties to the agreement?—We are not parties to it, but we are cognisant of it, and we approve of it.

1474. That as regards the Dutch ships, there should be intercommunication with another system?—With the Scheveningen Station.

1475. Have the Marconi Company also come to an agreement with the Argentine Republic very much to the same effect, or rather that they will be obliged to observe any international regulations which the Government may impose?—Not so far as I am aware.

1476. I think your point about the patents rather was, was it not, that supposing the Marconi position was upheld in a court of law, without prejudice to their patent rights governing the whole of Article 10 of the Post Office agreement, the Government would not be able to carry out the Convention if they ratified it?—They might be, but they are not in a position, it appears to me, to pledge themselves to carry it out. If the patent is good they cannot do it without the consent of the patentee.

1477. Are you aware that under the Patent Acts the Crown has the right to use any patent, subject of course to fair and reasonable compensation to the patentee?—Yes.

1478. Would not that meet it?—No, I think not, because I do not think the Crown can use a patent in such a fashion as to prejudice the security intended to be conferred by the patent. The Crown could use the patent, on paying fair and reasonable compensation, for communication with Marconi apparatus, but it cannot

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use it in such a fashion as to derogate from the grant which it has given. The intention of the Crown in granting a patent is to confer protection on the invention. If it uses it in such a fashion as to prejudice that protection it derogates from the grant.

Mr. Lambert.

1479. It makes it a condition that the patent shall not be used against the Crown prejudicially?—There is something of that sort in the Patent Act.

Mr. Sydney Buxton.

1480. Would not that give them the power?—No, I do not think so. I have not considered that point.

1481. The Government, if they wish, I presume, can pass an Act, as they rather suggest in the Convention, which would maintain the patent of a particular company in the same position. That is to say, that the operation of intercommunication would not affect the patent rights?—The English Government, you mean?

1482. Yes, if necessary—if so legally advised.—I should not consider myself (I speak under reserve as to legal advice, because I am not a lawyer) that the terms of the Post Office contract had been complied with if the Government now were to pass such an Act. The Act would have to take the form of a new Patent Act, because at present the position is based upon the Patent Act.

1483. It would be within their power. You might object to it or think it inexpedient?—I do not think it would have the effect of relieving the Government of any obligation that is taken by the Post Office contract.

1484. That is a legal question again, whether Post Office agreement was made with Mr. Marconi what view do you think the Company took with regard to these particular works at that time?—This question seems to me to be very likely to be discussed in a court of law, and I respectfully submit to the Committee that I should not be required to answer any questions on it which I am not prepared to answer, and I am not prepared to discuss correspondence prior to the contract as bearing on the contract or even correspondence subsequent to the contract.

1485. I submit that you have not been up to now very reticent on the matter?—I have stated the views of our legal advisers on the subject.

1486. And your own views?—And my own views. I submit to the Committee that I should not be compelled to answer any questions on this which I do not want to answer, and I do not want to answer questions with regard to correspondence prior to the contract or correspondence subsequent to the contract.

1487. You want to put your own case to the Committee, and not to answer questions which may clear up the matter?—It is a matter of legal opinion. We put forward a legal opinion and it is signed. It is not an anonymous opinion, and it is the opinion of a man of very considerable reputation. We can put forward half-a-dozen opinions on the question of whether intercommunication does prejudice, and we put

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forward a very important opinion as to the construction of the document.

1488. I presume that at the time when the agreement was made it was made voluntarily by the Marconi Company, was it not?—I do not really quite understand how you construe the word "voluntarily." The circumstances were that the Government was about to pass an Act which would make all wireless telegraphy a Government monopoly, so that we should not be able to do any work at all without a Government licence. Disputes arose between ourselves and the Post Office as to the terms of the agreement which was to be entered into. The Bill was to be read a second time on a certain Monday. The second reading of the Bill, I believe, is the important reading. The previous Saturday the Post Office notified us that they were not prepared to carry out one of the undertakings which we considered had been agreed to. It was an undertaking in a letter, and a few days previously Lord Stanley had personally confirmed this arrangement by saying, "I will carry out the undertakings in the letters if the Marconi Company carries out its undertakings." Therefore that was the situation—that on the Saturday previous to the second reading of the Bill, which would make all wireless telegraphy a Government monopoly, we had no contract. There were differences between ourselves and the Post Office as to the terms of a contract which had been agreed to be entered into. I can put in the papers on that. These statements are confirmed in a letter from Mr. Henniker Heaton on the subject, written at the time.

1489. What knowledge had he with regard to it?—I went to him and said: "It seems to me that difficulties are being made." I was not quite certain. He went to Lord Stanley, and Lord Stanley said: "I will carry out the undertakings in the letters if the Marconi Company carries out its undertakings." That was on the Wednesday, and the Bill was down for second reading on the Monday.

1490. There was an agreement, at all events, and were there not certain advantages for the company under it?—We got an arrangement for the collection of our messages and the rates in respect of them.

1491. And facilities for their transmission?—I do not think there is any particular point on that. We could always walk into a telegraph office and send our messages.

1492. Did not you, in your examination in chief, make a good deal of the difficulties which you had had before in having your messages sent?—Yes, but that is for collection of messages inland for transmission to the ships.

1493. Was it not facilitated?—Those are what I referred to when I said, "We got an arrangement for the collection of our messages, and the rates in respect of them."

1494. You laid before considerable stress on the difficulties you had had with regard to that?—For three years we carried on the service, but it was a one-way service. We could send the messages from the ship to the shore, but there were no facilities for the collection of messages, and rates in respect of them, for transmission to the ships.

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1495. It was an advantage to have the agreement, therefore?—Yes.

1496. There was an arrangement under it that with the intercommunication agreed to you should have some additional rates?—Double rates.

1497. Does not the arrangement for additional rates rather look as if the general idea of the Post Office agreement was that if there was an International Convention the Marconi Company would adhere to it?—I do not wish to interpret that clause. I have given the opinion of one legal adviser on the interpretation, and we have, as I have said, others of a similar character.

1498. You say there were certain advantages to the Company from the agreement?—We got the collection of our messages which we had asked for for three years, and which we also had in other countries.

1499. They had in their mind at that time, I presume, these various articles including Article 10?—Who had in their mind?

1500. The Company?—I do not quite understand the question. We signed a contract on the 14th August. We were aware of the terms of the contract, of course.

1501. And the Company obtained certain advantages?—We knew the terms of the contract when we signed it, of course.

1502. And the obligations that would lie on the Company?—We understood the obligations and the terms.

1503. With regard to the question of confusion, what I understood you to say (correct me if I am wrong with regard to that) was that if two ships were trying to communicate with a station there would be confusion, but that other stations and other ships, as far as you are concerned at all events, would not be able to create confusion at the station?—No, my point as to confusion arising from intercommunication is, that you have a number of competitors making common use of certain stations, and under such circumstances that any one of these users can prevent the others from having any advantage from the service. That is my point on the intercommunication. It is a considerable incentive to competition for the use of the station if the stations are worked by the shipowners, and the messages that are sent affect their service. For instance a Cunarder and a White Star Liner coming into Liverpool want to land their passengers and mails. They come simultaneously off the same coast station, and they want to send their own service messages and their passengers' messages. If they are worked by the Companies themselves there is competition for the use of the station, whereas if they are worked by a Company having a common interest in the traffic, the rules and regulations are observed. That is the principle of all public services carried on for the benefit of the public. The public have a right to require messages to be sent over the inland telegraph system, but they have no right to attach a wire to the inland network and use their own instruments. That is the point made by Mr. Babington Smith at the Conference. They must not send their own. It would result in confusion.

Mr. Sydney Buxton—continued.

1504. If the system is extended and other companies and other companies' systems become adapted and are adapted elsewhere will it not be necessary for regulations to prevent interference? Would it be sufficient to leave it in the hands of the Marconi Company?—The contention of the other witnesses is that there is an extensive system elsewhere. Assuming that that is correct, my answer is that we do not experience confusion which causes any serious trouble. I have given the figures for the messages—0.42 per cent. per word of message sent fails through some cause—bad operating or interference. That is, one word in 240 is not correctly transmitted because of interference or because of mistakes by the operators. That is in addition to mistakes owing to defects in the land service.

1505. That is your position at present I understand; but, assuming that other systems make progress, will it be necessary to have some further regulations than those merely of the Marconi Company?—No, I think not. I think there is a better remedy. If we can alter our arrangements as we find it necessary in order to avoid interference, we are very much better off than if we are tied down by certain regulations which are settled by an international conference. Supposing at the present moment we find interference at the North Foreland Station, there is nothing to prevent our adopting particular technical means to avoid that interference; but if we are bound down by the Convention we cannot. We have to stick to a particular wave length.

1506. You spoke of the Lloyd's agreement. You have had, I understand, a certain amount of difficulty and litigation with them. What has been the chief point of difference, without going to the legal technicalities?—The main point has been who shall work the stations, and my view is that Lloyd's thought that if they got control of the stations they would more easily carry out a certain arrangement which they had made with the Admiralty for handing the stations over to the Admiralty. We objected to Lloyd's working the stations. We did not want a transfer made to the Admiralty. We also objected because of the division of authority—one man working at the coast station and one man working on the ship causes a bad service. That point is made by a shipping company. The Allan Line complained to us that the working at Malin Head of Lloyd's Station was very unsatisfactory. They went on to say that it was not due to the apparatus on the ship but it must be due to the working at Malin Head, because the working in Canada was all right, and the working at Liverpool Station was all right. We consider that division of authority results in an unsatisfactory service—working by Lloyd's at the coast stations and by ourselves on the ships.

1507. Has there been recently a judgment on the subject?—Yes; there was a decision in the Chancery Court the other day with regard to the North Foreland Station. It was a question whether we were bound to equip Lloyd's Station at the North Foreland. We contended that we were not as we had our own station there. That judgment has been appealed against.

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1508. Can we see the judgment for the information of the Committee to see how it stands?—Yes, certainly.

1509. With regard to the point that was raised in examination, with reference to the convention not being ratified by us but ratified by other countries, I think you said that there were a certain number of the delegates who had privately stated to you that they did not think the Convention would be generally ratified?—I did not intend to say that. I said that the delegates, or a number of them, thought that the service provided for by the Convention was quite impracticable, but for their countries it was largely a matter of indifference.

1510. That was private information to you?—Yes.

1511. You are aware that it is officially mentioned with regard to Italy and France?—Yes, certainly. Italy has signed the Convention if we agree to alter our contracts, but if we do not agree to alter our contracts then there is no intercommunication.

1512. They declare themselves in favour of intercommunication do they not?—Italy.

1513. Yes, Italy?—I think not. I think they pointed out that they considered it impracticable. They said they could not put the convention into force unless we agreed to alter our contracts, and prior to the Conference of 1906 we offered to release them from the contract which compels them not to intercommunicate, and they declined the offer.

1514. Did not the official representative of Italy say this in the discussion: "These considerations will not prevent our endeavouring to find methods of reconciling our position towards Mr. Marconi and his Company with the desire to accept and apply as soon as possible the principle of free intercommunication"?—Yes.

1515. Subject to agreement with Mr. Marconi they were in favour of free intercommunication?—Yes, they said that, but in point of fact just prior to the Conference we offered to release them from the contract involving non-intercommunication and they declined it. The reply was that the arrangement had been twice approved by the Italian Parliament, and was in accordance with the views of the Italian people. They rejected the offer.

1516. Whatever was the upshot of your private communications they will ratify the Convention?—That was an official communication.

1517. I am not dissenting from that at all, but with regard to what you said about their views, whatever the nature of their private communications to you, I take it that on these nations to which you have referred, and others, will ratify the Convention even if we stand out now?—No, I do not think so. A good many of them, certainly some of them will not ratify if England does not. The United States, for instance, cannot ratify until they have legislation. Before now they have signed Conventions (for instance the Patent Convention) which they could not carry out without legislation, and they have not legislated in order to carry it out.

Mr. Sidney Buxton—continued.

1518. Has not the United States been most anxious for intercommunication?—The two countries that took the strongest parts were the United States and Germany—great maritime rivals.

1519. You may assume that they will legislate?—They have to legislate first, and the Senate does not meet till December. It is not practicable to introduce legislation until after December. They have not done it yet. It was contemplated last Session, but it was abandoned.

1520. Assuming that the Convention goes through, and that the nations to which you have referred will ratify as seems probable, how will that affect your position? Will not there be extra pressure with regard to these countries to insist on the various ships (subject to the legal agreement) which now have the Marconi system on board either accepting intercommunication or ceasing to carry Marconi apparatus?—No doubt considerable pressure would be put on the shipping companies, as it has been in the past by the French and German Governments, but it has not been successful.

1521. Will not they be bound under the Convention to do so?—They may find means through the Article with regard to restricted service of avoiding intercommunication so far as Marconi's ships are concerned. There has been strong pressure on the shipping companies in the past, but it has not been effectual. The French Government and the German Government have pressed the shipping companies, and the French and German shipping companies have realised that intercommunication will upset their services. It was recognised also by the English companies, and they sent communications to the Board of Trade on the subject. The Allan Line wrote to the Board of Trade and the Cunard also pointing out that intercommunication would upset the whole service, and one of them went so far as to say what is contained in this letter. I will hand in, if I may, the communication from the Cunard to the Board of Trade. (*Vide Appendix, No. 14.*)

1522. Was that the result of a communication to them by the Marconi Company?—Yes. We communicated with them.

1523. Would you hand in your letter as well please. Do you object to doing it?—I object to doing it.

1524. I thought you said you would hand it in. Was the communication more or less on the lines of the answer?—This is not our letter. I might suggest that you should call for the letter from the Allan Line. I understand they have written to the Board of Trade in similar terms. I have asked for it, and they will not give it to me.

1525. If the United States ratified would it not close the Marconi stations there, unless they agreed to intercommunication?—If they ratified it would close them unless they made them exempted stations—stations for restricted service. It is almost impossible to construe the article about restricted service. It may mean anything or nothing. Article IV. is the article I am referring to: "Notwithstanding the provisions of

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of Article III. a station may be appropriated to a service of public correspondence of a restricted character." Really I do not know what that means; it may mean anything. They may call our service a service of a restricted character.

1526. Will not that be at the option of the particular Government?—Yes.

1527. If a particular Government ratify they will probably carry out what they agree to?—They would be carrying it out if they acted in accordance with this Article too. Anything that is in the Convention a Government is entitled to do.

1528. Quite so, but some of these countries at all events are very anxious to carry out intercommunication, and if they are anxious to do so they probably will do so?—I said that the United States Government delegates, and the German delegates, showed themselves at the conference extremely anxious to carry out the principle of intercommunication but I am bound to say the views of the Governments are very often not exactly identical with the views of the delegates.

1529. With regard to the erection of stations on foreign soils. We have dealt with the question of nearness under the Article. Is there not an Article in reference to interference saying that a station under the International Convention shall not be erected. Article 8, on page 61 says: "In such a manner as not to interfere with the working of other stations of the kind." The existing stations would have a priority in that respect?—"The working of radiotelegraph stations shall be organised, as far as possible, in such a manner as not to interfere with the working of other stations of the kind."

1530. The object of the Article is that there shall not be stations dumped down, as it were, in order to interfere with existing stations. Is not that the object of the Article?—It has reference, I understand, to the working of the stations.

1531. Would it not also affect the erection of stations too?—I do not think this deals with erection; it is the working of radiotelegraphic stations that is to be organised, as far as possible so as not to interfere.

Mr. Lambert.

1532. Do you say that ratifying the Convention would be a distinct disadvantage to British defensive interests. Is that so?—Yes, I think so.

1533. Are you aware that the witnesses representing both the War Office and the Admiralty have expressed a diametrically opposite opinion?—I have heard the opinions expressed, but I think the grounds upon which they base those opinions are not good grounds, and they are very contradictory. The Admiralty witnesses say on the one hand that there is a good deal of confusion and interference at the present moment, and that the Convention will stop it. Mr. Babington Smith, at the Conference, pointed out at page 58 that the very principle of intercommunication would very likely give rise to a good deal of difficulty. I have referred to it several times on the question of general inter-

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communication. He said:—October 25th: "General intercommunication has yet to be carried out in practice. When the impatience of captains, the rivalries of telegraphists, above all when competition between different systems and the possible want of accord between apparatus are taken into account, can we be sure that all will go well? The risk of miscarriage is the greatest where the traffic is the most concentrated; and it is precisely at such points that there is the greatest necessity to maintain communication without impediments and without delay. In the case of Great Britain a well-organised service already exists. We wish to preserve the right to maintain this service, if necessary, with its present organisation, while placing other stations at the disposal of all the world. In order to show the drawback of a general exchange let us take an analogy which will appeal, perhaps, to those familiar with ordinary telegraphy. Let us suppose that a region of 20,000 square kilometres is provided with thousands of telegraph signals to the centre by attaching any transmitter whatever at any point to any of these wires. It seems to me that the operator at the centre would certainly have a good deal of trouble as regards the efficient working of the system, and that if he were wise he would at least reserve some of these wires for the use of telegraphists who have all learned and practised the same system, and who would be subject to the same authority." The point is that you have no physical means. You cannot switch a man off. You have no physical means of excluding the message, so that the difficulty with wireless telegraphy would be greater.

1534. On the previous page I find they were discussing Article III., which refers to exempted stations?—Yes, it is an argument for exempted stations.

1535. Were those exempted stations obtained by the British delegates?—They asked for this provision with regard to exemption.

1536. And they obtained it?—Yes, they obtained it.

1537. So that Mr. Babington Smith succeeded in convincing them?—They did not get this embodied in the Convention. It is in the Protocol Finale. I will not say that.

1538. Has the Protocol the same weight as the Convention?—Only a certain number of countries agree to exemption. They do not all agree to it.

1539. Would you say that the Protocol has not the same weight as the original Convention? It depends on who adopts the arrangements in the Protocol. You can put a declaration from one Power in the Protocol. If they had all agreed to exemption it would have had the same effect as if it was in the Convention.

1540. At any rate the adherence of Great Britain would be on the assumption that the Protocol had equal weight with the original Convention?—Certainly, but it only has effect upon particular countries as far as certain clauses are concerned.

1541. We are discussing whether Great Britain shall adhere or not?—One of my points is that if a number of people agree that a certain matter has to be regulated by them together it hardly suffices for one man to get his

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his views expressed in the form of reserves. Eight people have to do a thing together. Seven people agree to certain arrangements, and they are adopted, and one man gets his arrangement adopted by way of reserve.

1542. How many reserve their position?—Seven reserved the power to exempt stations and the rest definitely declared that they would not exempt.

1543. So in this matter Great Britain at any rate got what she wanted or asked for?—No. She did not get all the other Powers to agree. With regard to ship to ship inter-communication it is just the same. That, the delegates say, will cause confusion. If Great Britain says: "We will not enforce ship to ship intercommunication partly because it will cause confusion," the fact that she says that or the fact that she reserves her right not to enforce intercommunication between ships will not help her in the matter in the very slightest if the German, French, Dutch and Belgian Governments are all enforcing intercommunication between ships. To serve her purposes she ought to have procured those other Governments not to enforce intercommunication between ship and ship, thereby reducing the chances of confusion.

1544. Do I understand you to say that the Protocol is of no service to Great Britain?—I do not say it is of no service at all, but I say that it is a reserve in respect of one Power, and has not, obviously, the same effect as if all the Powers agree to the provision of the reserve.

1545. You said seven Powers, I thought?—In this case seven Powers.

1546. If the seven stood out of the Convention the Convention would practically become nugatory would it not. Their adherence to the Convention is based on reservations contained in the Protocol, and if they stood out from this Convention, then the Convention would be nugatory—that is to say if the Protocol were not put in force?—Under the terms of the Convention if seven Powers stand out the thing still stands for the others.

1547. But you could not have seven Powers standing out of a wireless Convention, to be effective, could you?—I do not think it matters a bit if Powers such as Hungary, Monaco, and so on stand out.

1548. What were the Powers that stood out?—France, Japan, Portugal, Italy, Great Britain, and Denmark apparently reserved their right to exempt certain stations.

1549. They form a considerable body in the international comity of nations?—Italy and Great Britain do. I do not think it very much matters about Denmark, Portugal and Japan, because for present purposes it hardly affects the service. Neither does France at the moment, because all the French ships are Marconi.

1550. I find in the Powers that rejected the Protocol or have declared their intention not to be bound Uruguay, Roumania, and amongst others Monaco. They would not have exempted stations?—That is perfectly true, but on the other hand there were very important Powers like Germany, Austria and the United States. I do not think that Hungary counts for very much. You have perhaps the list there?

Mr. Lambert—continued.

1551. Yes, I have the list?—I do not think that Montenegro is one. Montenegro did not sign at all.

1552. It is purely a matter of opinion?—Yes.

1553. It is not a matter of fact. The point that I really wanted to put to you is that your evidence is in direct conflict with the evidence which has been given by the responsible authorities of the Government?—Of the representatives of the departments who were at the Conference?

1554. The War Office and the Admiralty?—The attitude of the Admiralty towards this matter before the Conference, and after the Conference has utterly changed. When we went to Lord Selborne in 1901 he said that it was necessary to have as few people as possible working. The First Lord raised this question. We went to Lord Londonderry, and he said that it was rather a matter for the Admiralty and not for the Post Office. "Make arrangements with the Admiralty: satisfy the Admiralty and the Post Office will deal with you." The First Lord raised the question at this interview whether we wanted an exclusive licence, and pointed out that if many different systems were working in the United Kingdom they might cause interference with one another. Major Flood Page, the then managing director, said we did not seek an exclusive licence.

1555. What was the date of that?—1901, I think. I cannot give the exact date.

1556. It does not matter; 1901 will do?—Later, Sir George Murray, for the Post Office, wrote to us after we had had these negotiations with the Admiralty, and said that His Majesty's Government saw great advantage in the concentration of wireless telegraphy in as few hands as possible, and that view was apparently expressed as the outcome of the views of the Admiralty. Then in 1903 the Admiralty made a contract with us embodying the exclusive working principle only with Marconi-fitted ships. That was on the very eve of the first Conference. I can hardly conceive that the Admiralty would have made an arrangement which rendered them liable to compensation to us with regard to non-intercommunication if they had thought that the principle of intercommunication was good. I had a great many conversations with the chief Admiralty delegate, Captain Bethell, and he was always strongly against intercommunication.

1557. After the Convention?—Up to the eve of the Convention. There was a great difference of view on the part of the Admiralty delegates before the Conference. After the Conference there was a complete change of view.

1558. The Admiralty delegates might have learned something at the Conference?—They were supposed to study the question very carefully beforehand.

1559. But that does not prevent a man learning. Probably a man would be in a better position to learn if he had studied carefully beforehand?—They laid down certain stipulations in their preliminary declarations at the Conference, and those stipulations were not fulfilled.

1560. What stipulations that the British delegates

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gates laid down were not fulfilled?—Suitable regulations for preventing interference and means of enforcing them. Captain Bethell was very strong on the question of enforcement.

1561. With regard to Captain Bethell, he has not been called as a witness?—I noticed that.

1562. Can you give me any official authority for the statement you are making?—That the views were different before the Conference?

1563. Yes?—I have quoted to you Lord Selbourne.

1564. That is in 1901?—Then later comes Sir George Murray writing from the Post Office.

1565. But he has nothing to do with it?—He was quoting the Admiralty views because it was said to be an Admiralty question. His Majesty's Government sees great advantage in the concentration of wireless telegraphy in as few hands as possible. Then in 1903 they made the contract for exclusive working. That was on the eve of the first Berlin Conference—only Marconi-fitted ships. Colonel Daniel has told you that through Lloyd's contract they hoped to get concentration in one hand. There was a contract with us for fourteen years by Lloyd's for exclusive working with Marconi-fitted ships.

1566. Question 499 does not bear out what you say does it with regard to Colonel Daniel. They endeavoured through Lloyd's to obtain a limited control?—Yes, but they knew the terms of the Lloyd's agreement. It was for exclusive working for fourteen years, as I have said, with Marconi-fitted ships, and before Lloyd's made it they were in communication with the Admiralty on the subject.

1567. Lord Selborne or the Admiralty in 1904 agreed to the principle of intercommunication?—I have heard it stated in evidence. I was told that the Post Office were too strong for the Admiralty in the matter. The Admiralty always told me that they were very strongly against the principle of intercommunication. They thought it bad. Two months before the last Conference we had certain offers from a Continental group. I was very much pressed to accept them. It would have meant the sale of the shares of the International Company, all of which we hold, to a foreign group, and any arrangements made with English coast stations would have been made with this foreign group ultimately. I went to Captain Bethell. I had heard his views over and over again. I told him I was going to oppose this offer at our Continental Board. I said: "You see the very serious position it will put me in if you do not stand by us." It was really asking for confirmation. His answer was: "Mr. Hall, we are with you to a man in the Admiralty. It is not only myself." He mentioned one or two names of other officers who would become delegates. He also mentioned Admiral Jackson, the Comptroller, who knows a good deal about wireless telegraphy. You will understand that I am not trying to reproach the Admiralty for leading me to do something which was foolish or inadvisable, but simply giving it as evidence that before the Conference the Admiralty were dead against intercommunication. When he

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Mr. Lambert—continued.

said: "We are with you to a man," he could not have misunderstood me, because I had discussed it again and again with him.

1568. Have you that recorded in any official document?—No, it was a verbal communication.

1569. Do you allege that the Admiralty has not broken faith with you?—I do not put it like that. I went to him and said: "We have this offer. I propose to oppose it. Our Continental Group have a lot to say in the matter, and urge it very strongly. If I oppose it, and after all England ratifies the Convention, I shall have done something very prejudicial to the interests of the shareholders;" and he said the Admiralty was with us to a man. I am aware that a gentleman who takes very great interest in Imperial Defence (I do not know whether there is any objection to mentioning his name, but perhaps I had better not) went to the Admiralty and asked their views on the subject, and he wrote in a newspaper and said, "Before the Conference the Admiralty was against the Convention. After the Conference the Admiralty were in favour of it. If they were right before they are wrong now, and if they were wrong before, they are not to be trusted now."

Mr. Gwynn.

1570. Was that a signed letter to that effect to a newspaper?—No; I think it was a leader. I would rather not mention the gentleman's name without his authority. I do not think he is in the country at the time, or I might suggest to him that his name should be quoted.

Mr. Lambert.

1571. We have gone into a good many of your own statements, which cannot be corroborated by evidence, I am afraid?—They are rather supported by the official documents. The official attitude was, in 1901, exclusive working.

1572. But if you claim the official view of the Admiralty surely that must be given by the official representative of the Admiralty?—Their views after the Conference and their views before the Conference are different. That is the point I am making.

1573. But the point you are making is based solely on a conversation?—Not solely. The Admiralty contract provides for exclusive working with Marconi-fitted ships. In 1903, when we went to the Post Office asking for licenses and facilities, we referred to Lord Londonderry's previous statement. He said, "Satisfy the Admiralty." We wrote a letter to the Post Office, and we said, "The Admiralty see in the grant of an exclusive licence to the Marconi Company their best protection against interference and confusion." I can produce that letter. That was sent to the Post Office and was submitted to the Admiralty before it was sent to the Post Office, and was approved by the Admiralty. You will find a copy of it in the Admiralty files. So there again they were saying exclusive licence and non-intercommunication.

1574. Did not the agreement entered into
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with the Marconi Company before the passing of the Wireless Telegraphy Act in 1904 expressly release the Admiralty from their agreement with the Marconi Company?—If certain conditions were fulfilled.

1575. The only condition was that it was to be without prejudice to their patent rights?—There was a question about the time when the Convention should come into operation. There are letters appended to the heads of agreement. It was not put into the agreement. If you look at the Post Office agreement that was actually signed you will find two letters are appended to the heads of agreement.

1576. What are you referring to now?—The Post Office agreement of 1904.

1577. As I understand it your agreement with the Post Office with these conditions (I will not call them small) expressly exempted the Admiralty from their agreement in 1903?—If certain conditions were fulfilled.

1578. What were the principal conditions?—Without prejudice to patent rights, the double rate, giving no information with regard to patented devices, and also an undertaking in certain letters appended to the Post Office agreement of 1904. One of those contained an undertaking.

1579. That disposes of the idea that the Admiralty had not it in their minds in 1904 that the principle of intercommunication might be beneficial to them?—I think not.

1580. I am thinking of what was put into the agreement?—The Post Office were always in favour of this, but the way in which it was put to me was that the Post Office were too much for the Admiralty.

1581. Who put it like that?—Captain Bethell. I was reproached for giving up the whole situation by entering into the Post Office contract.

1582. When did Captain Bethell put this to you? Was it in any document?—No. We saw each other very frequently on this matter. There must be other Government Departments I think which can give evidence as to the views of the Admiralty before the Conference. I do not think knowledge of it is confined to the Admiralty.

1583. Unless you can give me chapter and verse for it I cannot test it?—I say that the Admiralty was against intercommunication and in favour of exclusive working.

1584. In 1901 was it?—It is consistent policy. We have Lord Selborne in 1901; then the attempt to get control through the Lloyd's Agreement to which Colonel Daniel has referred and as to which there is further evidence; the contract of 1903 which is exclusive working; the statement of Sir George Murray that the Government is desirous to see the thing concentrated in as few hands as possible; and the terms of the letter to the Post Office asking for the licences. "The Admiralty see in the grant of an exclusive licence to the Marconi Company their best protection against interference and confusion." That was the view of the Admiralty when the letter was written. Before we sent it to the Post Office we submitted it to the Admiralty. It rests, as you say, after that on my verbal statement, but all that was said to

Mr. Lambert—continued.

me by Captain Bethell subsequent to that date is entirely consistent with what passed previously to that date. I knew that the Post Office were very anxious to have intercommunication, and they urged it upon the Admiralty. There was a meeting of all the delegates to discuss the arrangements at the Conference—the Admiralty, Post Office and War Office. It took place on 15th August and there were very strong differences of opinion, of exactly what nature I cannot say, even at that date between the Admiralty delegates and the Post Office delegates.

1585. This is before the Conference?—That took place on August 15th, 1906, a few weeks before the Conference.

1586. I am afraid I cannot go into details about the difference between delegates. It must have been an informal Conference of their own I suppose?—I understood you to put it to me that the Admiralty and the War Office all considered this as satisfactory from the Naval standpoint, and so on?

1587. Yes?—I say that I do not think so, and I give certain reasons, and I say that their view now is very different from what it was before the Conference and for many years before the Conference. In 1903 they opposed it. England did not sign the Protocol of 1903 at all.

Mr. Arthur Lee.

1588. I will ask you one question on this point which you have just been discussing. I understand that you state that the Admiralty has changed its opinion with regard to this question, not from the opinion it held in 1901, but the opinion it held just previously to the Conference?—Yes, I say so.

1589. And you base that on a conversation you had with Captain Bethell?—Yes.

1590. You would be quite willing that Captain Bethell should be called?—Absolutely.

1591. Therefore you consider it rests with the Admiralty to try to produce Captain Bethell or to accept your statement?—Certainly. I make that point particularly—that there were very strong differences of opinion between the Admiralty delegates and the Post Office at a meeting which took place at the Post Office, I believe, on August the 15th.

1592. You maintain that it is not possible for the Committee to dispute your statement without calling the other witness chiefly concerned—Captain Bethell—in order to ascertain the facts?—Yes; and I say further that those views were entirely in consonance with previous views.

1593. You are aware that Captain Bethell placed certain views officially before the Conference?—Yes.

1594. On pages 26 and 27. As you understand those views, do you take them to express a strong opinion against the principle of intercommunication?—Yes. I understand him to take the same view that I take—that you cannot enforce the regulations by intercommunication.

1595. My point is rather this: It is impossible for us at this moment to get behind private conversations?—Certainly.

1596. I wish

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1596. I wish to ask you whether you consider the views expressed by Captain Bethell in the official document laid before the Conference practically agree with the views which he expressed to you privately?—I think he goes a little further towards the Convention here than he had expressed to me privately.

1597. I will only take one sentence. He stated this: "The question of intercommunication has special importance for Great Britain because she already possesses a widely extended radiotelegraphic organisation which satisfactorily meets her requirements, and which will be seriously affected by the adoption of the principle of intercommunication." I take it that in your view of the general sense of the official communication is against intercommunication?—Certainly, and after the declaration of the Italian delegation at the Conference and the British delegation: it was commonly said at the Conference that there would be no Convention at all, and none could be reached. Subsequently a different view was taken. It was considered that the British delegation had receded from the position defined in the official declaration; and I know that the Italian Delegation considered themselves left rather high and dry over it, because the two delegations compared their declarations before they made them.

Mr. Sydney Buxton.

1598. Was not the whole of that governed by two or three lines further on in which Captain Bethell said that in order to carry this out certain regulations and certain measures were necessary, but subject to those it might be satisfactory?—The general effect produced on my mind by this declaration (it might have been stronger) was that the Admiralty did not wish any intercommunication. That was the effect produced on the minds of very large numbers of people at the Conference. It was commonly said two or three days after the Conference began, "No Convention will be reached, because Italy and England have expressed a certain view."

Mr. Arthur Lee.

1599. Passing away from this point, I understand that generally speaking the Marconi Company claims that it is in the position of a public telegraphic service?—Yes, carrying on a public telegraph service by means of wireless telegraph instruments and not selling them promiscuously.

1600. And that their position is comparable to that of the Post Office, which is operating a land telegraph service?—Yes.

1601. In any system of that kind you consider that centralised control is essential to efficiency?—Absolutely, and it exists in all public services.

1602. You maintain that that centralised control practically exists at present under your organisation?—Most certainly.

1603. Whilst there are other commercial Companies open to business, they are not doing such business as you do?—They are not carrying on a public telegraph service by means of wireless apparatus. We have a number of

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Companies associated together for the same purpose—in Canada, the United States, Argentina, Belgium, and France, all Marconi Companies controlled by the English Company and all working in conformity with one another under uniform arrangements.

1604. I gather that you think that Mr. Babington Smith's statement on page 58 supports that view generally?—Yes. That is an argument in favour of exempting certain stations. If you carry that argument to its logical conclusion it is not merely an argument in favour of exempting certain stations, but an argument against any service at all based on the conditions of the Convention. If confusion is likely to arise, and it is necessary to exempt well-organised stations, what utility is there in establishing stations for the intercommunication service.

1605. What Mr. Babington Smith was chiefly anxious about, as I gather, was that the British Government should be able to exempt certain stations, meaning thereby certain stations that might be required for defence purposes, and so on?—I think he is speaking also in the case of Great Britain of a well-organised service already existing—presumably referring to the Marconi service. That is a commercial service. That is in the second paragraph.

1606. He refers especially to the Poulsen system?—Yes.

1607. Did you mention the Poulsen system when you specified certain others you considered had infringed your rights. Have you had any grievance against the system with regard to infringement?—I think that the Poulsen people infringe our patents in respect of the aerial. They use the aerial, I think. We do not attach very much importance to the system.

1608. I see that Mr. Babington Smith especially objected to the system of compulsory intercommunication on the ground that it might prove an obstacle to the development of the Poulsen system?—Yes, he makes that point. The Poulsen system claim to employ a persistent wave, an undamped wave. The contention is that this undamped wave cannot be taken in by another system. But the Poulsen is not a persistent wave. A true persistent wave could not be taken in by another system.

1609. Is there any force in his contention on that point?—Yes; I say certainly, and it affects us personally. We have a persistent wave system of our own which is not suitable for intercommunication.

1610. That bears out what has been suggested, namely, that the adoption of the Convention might injure the scientific developments of the art of wireless telegraphy?—Certainly it has been urged that certain stations are exempted, but all developments of invention takes place in application. One cannot afford to put down wireless telegraph stations which cost hundreds, and perhaps thousands, of pounds, simply for the purpose of experimenting. They are put down for commercial purposes and developed in commercial application.

1611. You said that your chief objection to intercommunication was that it brought about the common use of a wireless service by competitors

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petitors. Is your idea that this competition, as far as it is harmful, could be done away with by the co-operation of the various foreign Marconi companies, that is to say, companies which are established, and have their interests in foreign countries, but which are all operating upon a common system and upon one set of regulations?—Yes. We are now working in that fashion. We have companies in America, Canada, the Argentine, Belgium, and France, and in those companies the Marconi parent company has the majority of the stock and has the control of them. Therefore it is in a position to enforce its rules and regulations, and also the executives of those companies fully recognise the necessity for absolute co-operation. The only difficulty has been with regard to competition of the operators, who could not realise that French and English companies for these purposes were practically identical. Competition of the operators has been eliminated by the bonus to which I have referred. It was a small element, and it has been eliminated by the bonus.

1612. You think that in that way proper control can be kept over the operators to prevent confusion?—I feel sure of it, and I think every experience in the carrying out of any public service confirms it. There is no public service in the world carried out by co-operation of heterogeneous users making common use of certain apparatus. Railway and telegraph services are all carried out by Government administrations, or by private companies.

1613. Do you think a way of dealing with misbehaviour on the part of the operators would be by means of diplomatic notes to foreign Governments?—That would be a difficult way of getting at them. It would be very unsatisfactory. Each Government would be inclined to support its own operators, and it would not be practicable to get direct at the fount and origin of the error. It would be necessary to communicate with the foreign Government, the Government with the shipping company, and the shipping company with its operators. The ship may be in a foreign port, and there is no organisation for dealing with the questions arising. If our ships go to the States there is a proper organisation there to deal with the telegraph traffic questions. There is a proper bureau. But the owners of tramp steamers will not constitute these bureaux even if the big shipping lines do. It is very doubtful whether the Cunard Company would constitute a telegraphic bureau to deal with the commercial questions that arise. The greater the number of people involved the greater the difficulty, and most of the people involved will not have the specialised organisation at all.

1614. One of the Admiralty witnesses, Lieutenant Loring, stated what would be the result in case the Marconi Company was implacably hostile to the whole Convention, and suggested that they might imbue their servants and operators with a sense of hostility and so forth. Is there any justification for the suggestion that they would take up such a stand with a view to creating an absolute *impasse* in the wireless

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telegraphy world?—None whatever. It is against our rules and regulations for operators to send any messages at all except those delivered for transmission. It is a deliberate breach of the rules. They only send the messages which are delivered to them for sending.

1615. Taking the policy of the company whilst they may be strongly opposed to the Convention in their own interest they do not propose to take up a position which would make wireless telegraphy impossible?—Do you mean jamming everybody?

1616. Yes?—No. We should spoil our own traffic. We could not carry on our own traffic, and at the same time operate the instruments to upset other people.

1617. You said, in beginning your evidence, that in your opinion the Admiralty had copied and reproduced Marconi instruments?—Yes.

1618. Are they entitled to do that or is that an infringement of the patent upon which action can be taken?—The Crown has a right to take any patented article, paying the inventors fair and reasonable compensation, but we had not had compensation from them at all at that time, and I think it is rather straining the intention of the Act to make a contract with a private person or a company, and through that contract get information with regard to the invention which is not to be obtained from the specifications; and to send the apparatus to manufacturers and have it copied. That they did have it copied was disputed. I was told it was a case of two inventions proceeding on parallel lines, and arriving at the same point.

1619. Parallel lines never arrive at the same point do they?—It is a mathematical impossibility, as I pointed out at the time.

Chairman.

1620. You received £5,000 in due course did you not?—No, we received £5,000 a year from the Admiralty for the right to use all our inventions. At the moment the apparatus was copied there was £100 a year royalty on 32 ships. The Admiralty wanted more sets. They objected to the royalty and they copied the apparatus. There had already been one reduction. The original royalty was £250 and it was reduced to £100. They wanted it again reduced. We objected. They wanted more apparatus, and they copied ours.

Mr. Arthur Lee.

1621. You said in your evidence that you cannot have two stations serving the same area. Will you explain that view with reference to the case of Gibraltar, which has been frequently mentioned in evidence. Admiralty experts have told us that you can have two serving the same area. Other Admiralty experts have said that you cannot; and I do not feel that at present we have had any evidence or consistent evidence with regard to the position in a place like Gibraltar?—In the first place there is only one centre to a circle. A station at Niton in the Isle of Wight does not serve the same area as a station in the Channel Islands which has the same range. The Channel Islands station would operate South of the Channel Islands as well as north, of course. A station between Niton and

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and the Foreland does not serve the same area as a station at Niton if it has the same range as Niton.

1622. That is not exactly my point. Is it possible for them to work in close proximity serving approximately the same area?—For practical purposes I should say no, it is not possible. You can work with a very long wave and a short wave.

Mr. Lambert.

1623. Are you an expert yourself?—I understand the principles of wireless telegraphy. I am an electrical engineer and a member of the Institution of Electrical Engineers.

Mr. Arthur Lee.

1624. Is any other witness coming to give special evidence with regard to this?—Mr. Marconi will give evidence with regard to this.

1625. Then I will defer the question?—Certainly.

1626. Generally speaking, turning away from the public aspect of the case for the moment, I assume that you consider that the effect of this Convention would be to arrest the development of the business of the British company, and to throw a good deal of the business into the hands of foreign companies?—Most certainly. It seems obvious. It is proposed that they shall get the use of all our organisation. It is clear that all these foreign companies, as Mr. Babington Smith said, are in favour of it. They want us; we do not want them. They want amalgamation; they proposed it. We have rejected the proposals because they have nothing to offer. The next step is an International Convention to give them the use of all our stations.

1627. You think that in ratifying the Convention the Government would really be in that way benefiting foreign companies at the expense of a British company which was first in the field?—Most certainly, and most unfairly. It is quite clear on this question that the number of points available for communication is the important factor—both ship and shore, and not only shore. It is clear, also, that without this Convention they cannot overtake us, because before the Act of 1904 everybody was free to put up stations here. The Germans were then calling attention to what they called our monopoly and yet they did not seem to see their way to, provide means to knock a hole in it.

1628. You consider that from a public point of view we should look very carefully before adopting a Convention which proceeded in the first place from the initiative of a foreign company?—Certainly. The objects of it I think are clearly shown in the diplomatic notes to other States which I have quoted.

1629. You think from the diplomatic notes that the object of the German Government was, very largely, to prevent England from securing a monopoly?—Yes—or what was called a monopoly.

1630. At any rate to prevent England from maintaining the privileged position in which in which she now is?—Yes, exactly.

1631. Has there been any public satisfaction expressed in Germany over the terms of the Convention as drawn up?—The German news-

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papers say that Germany got everything she wanted by the Convention, and before the Conference they pointed out that only through adhesion by England to the Convention could Germany achieve her aim of giving the German Companies the footing which they had been unable to secure in open competition. They pointed out that the Marconi Company had organised a service on proper lines, that the Germans had interested themselves principally in the sale of apparatus, and that the only way to overtake the start which the English Company had got was through the medium of the Convention. That article was in the *Vossische Zeitung*. There is a translation of it in the pamphlet sent out to Members of Parliament.

1632. You think that the ratification of the Convention would not only play into the hands of foreign Governments, but would play into the hands of foreign wireless telegraph companies?—Certainly.

Mr. Adkins.

1633. You said that in private conversation with you some at any rate of the French delegates expressed no great enthusiasm for this Convention?—The French delegation was very anxious to have the Convention, and the principal French delegate, Monsieur Bordelongue, expressed himself very strongly in favour of the Convention at the previous Conference, basing his views on certain incorrect premises. He expressed himself strongly to me, and we had a long conversation on the subject. He finally conceded that I was right in contending that intercommunication was not analogous to the right of public use which there is of all public services, and that the thing was very difficult if not impracticable. He recommended the Convention to us on altogether different grounds. He said he did not think that the service was of much importance from ship to shore; that the long-distance service was what was important, and that we should gain other advantages by agreeing to this Convention.

1634. Are you referring to a meeting of the Conference or to something before the Conference?—That was at the Conference again.

1635. Do you wish to suggest that what he said in public does not express his true opinion: "Because it has uniformly maintained the principle of intercommunication, because it believes the application of this principle to be possible, even in the actual position of affairs, that the French delegation will always be disposed to second the goodwill which manifests itself in favour of a general agreement by which the public of all countries will profit so largely"?—I had not met him at that time, and, in point of fact, I did not attach particular importance to it. He expressed certain views at the first Conference, and for the sake of consistency, at any rate, he was more or less bound to express the same views at the subsequent one.

1636. You rather suggest that his personal opinion and judgment weakened the declaration, an extract from which I have read?—He agreed that the grounds on which he urged intercommunication at the first Conference could not be maintained.

1637. Is

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1637. Is there any public record of that agreement or of that change of opinion?—No. It was simply an expression of opinion across the dinner table.

1638. Supposing there were three ships desiring to speak at the same time to a shore station, what difference would it make from the point of view of possible confusion whether they were all using the same system or whether the three ships were using different systems. I am assuming that they all approach within reach at the same time and are speaking and signalling to a shore station at the same time. Would there not be some confusion if they were using the same system?—It is entirely a question of control. You cannot prevent two ships from sending simultaneously if they choose to send, or three from doing so. The service entirely depends, as one of the Admiralty delegates said, upon the control of the operators.

1639. Do you mean by the control of the operators the operators on the shore station or on the ships?—On the ships and at the shore station. If we get three ships in our service speaking to the shore station the order of delivery of the messages is determined by the coast station. Our contention is that if you get people controlling on the coast and different on the ships there is difficulty and still greater difficulty when there is competition between the operators on those ships.

1640. When you say that if three were speaking at the same time to the shore station each ship would be anxious to have its message taken first, surely now?—Yes, but at the present time all the operators are controlled by the one organisation—the Marconi. We get off the Lizard station, for instance, French, German, and American Companies' ships. All those are using our instruments. We control them all. There was competition, as I pointed out, but it is counteracted by the bonus to the operators.

1641. You are not able to tell us more definitely what difference there would be in danger of confusion if the three ships used different systems?—Controlled by different companies.

1642. If you like?—We might work three systems. It is not so much a question of system, but of control. We might use the Telefunken or the De Forest or another system. If we used the same tune there is no more liability to confusion under the circumstances.

1643. The confusion does not depend on intercommunication between systems, but it depends on the organisation or want of organisation between operators?—It depends on the conflict between a number of different organisations—the competition.

1644. The difficulty arises from want of organisation, and not from intercommunication between different systems, *per se*?—Do you mean technically *per se*, or commercially?

1645. First of all, I say technically the fact of three ships approaching the Lizard station, and each using a different system of wireless telegraphy, in itself would not create greater confusion if the organisation between the operators on a ship and the operators on a shore station were adequate and proper?—No,

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supposing the same tune was used. You have to agree to the tune.

1646. Tune means the same wave length and so on, does it not?—Yes; the same wave length.

1647. Your contention is, I understand, that exclusive management by one company is better than either competitive companies, or than management direct by the State?—Yes.

1648. That is roughly your point, I think?—The Convention does not provide for competition.

1649. I am not saying that. You gave an illustration as to the disadvantage of international arrangements by the fact that Amsterdam finds it convenient to telegraph to London *via* New York?—Yes, that is so.

1650. Does not that only happen at certain hours of the day when owing to the difference of American time New York is free from business while Amsterdam and London are gorged with business?—No.

1651. Do you agree with me as to the fact, and then we can come to the explanation that it is the busy time of day at which the use of the "*via* American line" occurs?—No. The Arbitrage dealing is all done London to New York, New York to Amsterdam. The New York Stock Exchange is open at about three o'clock taking the time here, I understand, and the Amsterdam Stock Exchange is still open.

1652. You do not agree that it is the fact that it is owing to the difference of American time and that there is not the business there at that moment that there is in Amsterdam and London?—No, I do not agree. Anyhow, the message goes very much further.

1653. Possibly it goes further, but time is the essence in those sorts of dealings very often. The extra charge for the use of cables between Amsterdam and London at a busy time of the day is a mere trifling compared with time, is it not?—Exactly; that is my point when referring to the Arbitrage Dealers.

1654. Is not inland telegraph work carried on in America by competing companies?—There are several companies carrying on inland telegraph work.

1655. You do not cite that in support of your suggestion that competing companies are undesirable?—It is not against it at all. They do not make common use of the same wires.

1656. You do not fall back on the analogy developed at the Conference and developed here again between the use of the same wires on the same lines on a railway and the use of wireless telegraphy in this manner, do you?—I do fall back on that.

1657. I agree that those of us to whom your contention seems sound it has weight, and to those of us who do not agree with the analogy it is by the way. You said that at the present time your company has control of and has agreements with many lines of steamers. When do those agreements terminate? I want rather more detail?—I cannot give that off-hand. I can give a table. The Hamburg American is ten years; I remember that.

1658. Ten years from when?—1903, I think. Most of them undoubtedly are short term agreements.

1659. The

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1659. The Hamburg American agreement expires in 1913. I want first of all the period at which the arrangements with the German lines terminate, and then the date at which the arrangements with the French lines terminate?—I cannot give those off-hand. The Hamburg American is for ten years from 1903, I think, but I am not sure.

1660. The North German Lloyd?—The North German Lloyd proposes to make a five years' agreement with us.

1661. From now?—From now.

1662. Is that subject or not to ratification?—There are a number of terms in the agreement.

1663. No doubt?—The German Government is not prepared to allow the North German Lloyd to make an agreement with us extending beyond 1908.

1664. Have you an agreement with them now?—We are working all the ships.

1665. You told the Committee that their vessels were equipped with your apparatus?—They are, and we are working them now.

1666. How long can you compel them to retain it?—It may be two or three months; I do not know. We are not running on any term agreement. If there is an agreement up to 1908 the German Government has intimated that they must not enter into a contract extending beyond that.

1667. 1908 is the extent therefore of your hopes. Your fears might realise themselves at any moment and, after 1908, there may be another arrangement?—Not necessarily. They may take the action they have taken before against the Government, and no doubt would take it if they could not communicate with British coast stations and with other ships.

1668. What arrangement have you with the French companies. Take the Compagnie Generale Transatlantique?—I cannot state the terms.

1669. I want the date not the terms. Their ships are already equipped with your apparatus?—They are already equipped with our apparatus.

1670. For how long must they be equipped with your apparatus?—I cannot say that without reference.

1671. Is it three or four years?—They are all short term agreements as far as I remember; they are all from one to three years.

1672. What is the position with regard to other companies?—Including the French?

1673. French companies two years from now?—One year from now.

1674. What about Italian ships?—I cannot say. The Italian Government cannot use any system but the Marconi system or communicate with any ship not fitted with the Marconi system.

1675. What is the term?—Ten years.

1676. From when?—From 1902

1677. I am sorry to trouble you, but it is rather important?—It was entered into in 1903.

1678. For ten years the same as the Hamburg-American?—It is the Italian Government; I am not speaking of the shipping companies.

1679. Are there any other foreign nations which have an agreement with regard to your

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apparatus with regard to shipping?—The Dutch.

1680. How long does that last?—That is the Holland-American line?—The Holland-American contract is at our option for a certain period. It is five years.

1681. They cannot get out of it during that time?—No, I think not.

1682. Five years from when—from now?—From the date of the contract of which you have already a copy, I think. I think that the time is five years for the Holland-American at our option. We can terminate it in 1908 if we choose.

1683. And the Belgian mail-packets—what is the term?—That was twelve years, originally, I think.

1684. From 1903?—No, that will be 1901. I should like to confirm these. They are subject to confirmation.

1685. I quite understand. With regard to all these foreign ships which are now equipped with your apparatus in the event of the countries to which they belong adhering to this Convention they would all then be obliged, would they not, under the Convention to intercommunicate, and any legal claims that you had upon them they would have to meet so far as they were able?—I do not quite admit that they are obliged to intercommunicate.

1686. It is subject to the loophole of Clause 4?—Yes, and the right of exemption with regard to certain countries.

1687. When you have a country like Germany which is anxious to have intercommunication and which has abandoned explicitly the right of exemption then the liners would have to intercommunicate and settle with you and you with them, as might happen?—Yes, if the Government chose to enforce it, but I do not think myself that the German Government will go to that point if the position obtains in the future here as in the past that there are no stations in British territory available for intercommunication with those liners and if they are cut off from the use of the Marconi organisation on ships at sea. What is the position if the stations are not available? The German Government has been pressing this for the last three or four years. To enforce it on German ships they do not need an International Convention but on representations they have withdrawn their pressure. And the same thing has happened in France.

1688. In view of the ratification of the Convention is it a fact that eight stations are being now constructed in France?—I did not say they were being constructed. I say that a resolution has been taken to erect a number of stations.

1689. The first steps have been taken for erection?—The first steps have been taken.

1690. Supposing that these liners decided to intercommunicate would you allow them to intercommunicate and retain your apparatus or would they be shut off altogether from the advantages of being connected with your company?—Either they would intercommunicate with our permission—

1691. Retaining your apparatus?—Yes.

1692. I understand you to say that apart from the right to intercommunication you hold your

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your apparatus and so on to be the best and it would be an advantage for persons to use those even if they were intercommunicating if you allowed it?—Yes. Part of the advantage would go directly if we allowed our stations to be used by a number of different persons. Our service would suffer.

1693. You would be paid by the persons using your stations?—But it is the confusion resulting to the service.

1694. That is the organisation point, I may take it?—Ships under different control making use of the same coast stations.

1695. There would be some advantage, you think, in ships retaining your apparatus if they were allowed to do so for intercommunication?—If they retained it they would get the use of our stations, but the benefit of the service would be to a certain extent gone owing to the fact that we allowed intercommunication which caused disturbance. The French shipping companies adhere to the non-intercommunication principle because they realise that there will be confusion if a number intercommunicate with the same coast station. Therefore they do not want it. Then take the views of the Allan and the Cunard Lines.

1696. Supposing that they are obliged to accept intercommunication, and cannot make an arrangement with you, they are then driven, are they not, to use stations other than your stations?—If they cannot work with us they naturally have to use other stations.

1697. In view of the fact that France is beginning to erect other stations, what is the position?—France has taken a resolution to do it.

1698. Taken a resolution to do it. If England did not ratify the Convention and other nations did would not the tendency be more and more to divert from stations on English soil the trade carried in the ships of other nations who were pledged to intercommunication?—No, I think not, because I think that all the shipping companies who have experience of the service will make a very great effort to avoid accepting intercommunication. If to-day there were eight stations on the French coast (there are two) the French shipping companies would rather keep our organisation than be in the position of being able to send messages direct to the French coast, through abandoning our organisation? The French and the Dutch shipping companies have been unable to communicate with their own coast for a good many years because they have taken the Marconi system.

1699. You suggest that they do not want to communicate with their own coast because it would confuse them?—No, I do not say that. I say that the intercommunication principle is a bad principle, and the Marconi Company offers a good service with a widely-extended organisation, and French and German Companies realise that communication with the British coast is more important than with France or Germany; and also with regard to Canada and the United States. The intercepting stations are the important point.

1700. If they realise that communication with the British coast is most advantageous and

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England ratifies the Convention, would not the fact that there was intercommunication everywhere still keep the stations on British soil in a position of advantage from their geographical situation?—The geographical position would stand, but the satisfactory character of the service would disappear. There are two things to be considered—the position and the character of the service. The geographical position remains, but the satisfactory character of the service goes.

1701. Does it really not come back to the argument about the unsatisfactory character of intercommunication, which is not due to there being more than one system, but due to more complex organisation being required with regard to the operators?—More complex organisation?

1702. Do you suggest that it would require more complex organisation than your own if you had different systems of intercommunication? I want to grasp your argument. It all comes back to that, does it not?—It comes back to this—that a great number of competing companies cannot make common use of different systems without interfering with one another.

1703. Even if the shore stations are under national regulations?—It is not a question of the regulations. It is a question of the principle on which the service is based to which those regulations have to apply. You cannot prevent, by physical means, a message from being transmitted. With regard to the Telephone analogy, you might have, for instance, the regulation that I am not to speak to you when you are engaged in conversation with someone else, although I am able to speak to you.

1704. I remember the analogy perfectly.—Even if they were working with our own apparatus there would be confusion if the service was not put into the hands of one company to administer.

1705. Your analogy requires the supposition that the shore station is, as it were, the individual that the people are speaking to?—Yes.

1706. Does it involve the suggestion that the shore station is really the equivalent of the Telephone Exchange?—It is not; because the Telephone Exchange has power physically to prevent me from communicating with you, whereas the shore station cannot adopt physical means of excluding the ship's wireless message from the shore station if it is told to stand by. It has regulations, but it has no power at all to exclude.

1707. Have you any evidence that these liners belonging to other companies have the same dislike to the principle of intercommunication that you have put before the Committee?—The German Government has put great pressure, as I have said, on the Hamburg-American and the North German Lloyd.

1708. Forgive me, you have told us that; but I want to know have you any evidence apart from that. That is partly because there are no equivalent stations on French or German soil and on the opposite side of the Channel. Have you general support from great shipping companies for the contention that intercommunication leads to confusion?—I have support for that contention

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contention in the letter from the Cunard Company.

1709. That is an English company?—I understand that the Allan Line has written to the Board of Trade in somewhat similar terms.

1710. I want communications from other companies than English companies?—The French are opposed to intercommunication.

1711. Are they opposed to it if there are stations on French soil?—That was the point. The French Government was pressing a French shipping company to communicate with the French coast stations. The German Government wrote to the French Government and said: "Compel the Marconi Company to communicate; they are doing it here." It was not true that we were. The French shipping company wrote a letter to the Government objecting to communicating with the French coast stations because it would cause interference and confusion. At first sight it would seem that the more stations the greater the advantage, but when they clearly understand the subject they adopt the same view as that adopted by the Cunard Company and the other shipping lines that intercommunication means confusion.

1712. You are really asking the Committee to report that in their judgment this Convention should not be ratified?—Certainly.

1713. You consider that if the Convention were not ratified the arrangement made between Great Britain and your company would be sufficiently powerful to obviate any disadvantage that might occur from the united ratification of all other countries excepting Italy?—Yes, and I base that conclusion upon past experience—that in 1903 all the Powers agreed to the principle of intercommunication. Many of them tried to put it into force. They established stations, but they could not even induce their own shipping companies to abandon our service, and from the standpoint of the mercantile marine England is more important than any other country, and Italy is in the second place in the Mediterranean, and is extremely important; and, of course, our colonial empire goes still further.

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1714. I want to ask you on one or two points arising out of your evidence. In the case of the departure of which we have heard from non-intercommunication, which you made with regard to the Scheveningen Station, what was the reason for that departure?—First of all there is no patent law in Holland at all. Our patent position is not affected. Secondly, after this Conference, we saw that if we could get all the shipping companies to adhere to our system, even if we accepted the principle of intercommunication, there would not be any necessary disorganisation of service. The only liners going to Holland of any importance are the Holland American, and if we got all the Holland America liners the confusion at the Scheveningen Station was not likely to be very considerable, because we should work them all ourselves. Secondly, the actual traffic through the Scheveningen Station is not of any consequence. It is worth our while to work

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the boats for the traffic even if we get no messages into Holland at all. We have been working them for some years for the sake of communication with ships at sea and English, Canadian and American coast traffic. The change was unimportant and would have no effect on the traffic, and there was not likely to be disorganisation because we should have all the boats.

1715. You have no objection to depart from your system when you control the extent to which confusion will be occasioned?—If there are not any ships using the station except our own we do not mind, and also if we can get protection for our patents. There is no patent law in Holland at all.

1716. Was the right to have private wires and collect messages conceded to you in other countries earlier than in Great Britain?—Yes. We had it in Italy and with the Belgian Government and with the big companies which operate the telegraph service in the United States before we had the agreement with the Post Office here.

1717. You have not had any special encouragement from the Home Government in this matter?—No. We were asking for these facilities for several years, but we did not get them until we got them in 1904, three years after the service had been established and some time after we had got them in foreign countries.

1718. Under the conditions that have existed since say 1902—that is to say while the bulk of the traffic has been controlled by the Marconi Company on the principle of non-intercommunication, has the expansion of traffic been as large as was reasonably to be expected, do you think?—Our figures for this year were 1,290,000, and the year before 793,000 words sent and received.

1719. You do not think that by practically enforcing a monopoly you have hindered the development of this contract?—No, certainly not, because we have all the big shipping companies of all nationalities. They have not been forced into taking it. They have taken it of their own choice.

1720. I should like to know in what sense you consider that you have a monopoly. If I may put it in this way, I take it that a monopoly can be either *de facto* or *de jure*. It may be a special privilege conferred by law or it may result from the exclusive control of some element such as for instance in some cases water or in some cases land. In either of those senses have you a monopoly?—Not *de jure* certainly. There is no legally recognised international monopoly but in the second case *de facto* we have all the business.

1721. You have all the business but there is no physical impossibility of another company coming in and by an outlay of capital erecting rival stations?—Certainly not. Up to 1904 any company could come here and erect any stations it liked without license. In foreign territories licenses were necessary for us and for them. A German company would have to ask for a license in France and so should we, but a French or German company could have come to England without a license and erected

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stations. A German company would have required a license in France and we also should have required a license in France. We could not have gone to Germany without a license.

1722. What you have had is not a monopoly but a predominant command of business?—Yes, in an open field but not in a truly open field. In competition, where we suffered certain disadvantages, we got all the business. That is what it comes to. The German company was backed by its Government. We could not go to foreign territory without licenses. They could come here. We were not backed by our Government.

1723. Practically the proposal is to divest you by an Act of the Government of the predominant control which you have secured in the open field?—Certainly. It is a syndicate of the Powers to provide an organisation which will compete with our organisation and compel shipowners to utilise that organisation under conditions that we say will be destructive of any satisfactory service. First, they provide the stations; secondly, they compel the shipowners to use them as far as they can, and the service is constituted on such principles that no satisfactory results can be attained if there is anything in our own experience of wireless working, or in experience in analogous cases.

1724. Your Company has two aspects, I take it. It exists to manufacture apparatus and to carry on the business of telegraphy with those apparatus?—Yes. We manufacture apparatus and sell it to the different Government Departments for Naval and Military purposes, and the largest part of our business, or a very important part of our business, is the carrying on of a public telegraph service by means of wireless telegraph apparatus.

1725. Which of those branches of your business requires the most capital outlay?—We have spent altogether on this International Service of ship to shore communication £695,000, or close upon £700,000. The expenditure on other purposes has not been so large, that is to say on manufacture and sale.

1726. Not so much?—No; not nearly so much. I have not the figures for the other part. The expenditure on the ship to shore communication is £695,000.

1727. Have other companies the same dual aspect? Are they both organising companies and manufacturing companies?—No; they are not. As pointed out in the article in the *Vossische Zeitung*, which was written before the Conference, "The German company has principally occupied itself with the sale of instruments. The Marconi company has always organised a public telegraph service. The German people must strain every nerve to overtake the Marconi company, and the medium for overtaking it is the Convention, and this is the right way of overtaking it."

1728. The German company have been at a certain advantage in comparison with you, because they have not undertaken the enormous capital outlay required in the business of conducting a public telegraphic service?—Certainly. We bought the patents in the first instance, and spent very large sums of money in developing

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them. We spent very large sums of money in organising and establishing the business, and we get our return from the receipts for the messages. Therefore the character of the service is of great importance to us. German companies would be in the position by the Convention to go to a shipping company and sell an instrument. Whether the service is good, bad, or indifferent does not matter to the German Company. On the other hand, if it is a bad service owing to intercommunication it will upset our service, and we are interested in the service.

1729. The proposal is that a man who buys an instrument from the German company shall have the use of your organisation?—Yes, the proposal is that anybody who buys a wireless telegraph apparatus from anybody is to have the use of the Marconi stations.

1730. It is quite possible that the Germans, if they devoted their whole power to the manufacture of apparatus, might be able to compete with you successfully on that side, or at all events would have an excellent chance of competing with you successfully?—If the shipping companies buy apparatus and there is general intercommunication, there will be in my judgment confusion, and later on there will be a proposal for remedying that confusion, and that will take the form of some company carrying on a public telegraph service—probably a German company.

1731. That is what you think would happen in the event of the Convention being signed?—There will be confusion if it is signed and put into effect. If the shipping companies are forced to adopt what I call the Convention service there will be general confusion, and ultimately some company, probably the German Telefunken Company will be proposed to work the instruments on the ships and on the coast stations themselves and you will have the Telefunken Company providing a service such as that which we now conduct. That is undoubtedly the project of the German Company.

1732. On the other hand, if England refuses to ratify and stands out for the Convention, several witnesses represented it as probable that the rival companies controlled by different nationalities would deliberately seek to interfere with the Marconi services, and there would be a wireless war?—A wireless war.

1733. Is that probable?—I do not think so at all. The best security against interference is the avoidance of promiscuous working. At the present moment there is no encouragement for promiscuous working. All these companies have existed for a number of years, and they are animated with a certain spirit, if not of hostility of competition. They regard us as serious competitors, but they cannot concert measures to upset our working. Even when they were perfectly free to establish stations on the British coast they could not do it.

1734. There has always existed a certain element of hostile rivalry, you mean to say, to the Marconi Company?—There were a number of companies existing—the Telefunken, the De Forest, and the Lodge-Muirhead.

1735. Those have never deliberately interfered?

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tered?—I do not know whether they have attempted to interfere, but they have achieved no effective interference.

1736. Do you think that if the Marconi Company stood by itself against any possible combination afterwards there would be no interference that would injure your efficiency?—No. I do not say that there will be no interference. There is always a liability to interference in wireless working, but we are quite prepared to meet that, and we have met it, such as it has been, and it has been very small in the past. If England does not ratify, the interference can only take place from coast stations on foreign territory or from ships at sea. At the present moment all the ships of the big liners that pass down the Channel are fitted with Marconi instruments.

1737. For how long have you been controlling the business of the Marconi Company?—Personally?

1738. Personally?—I was appointed manager in 1901, and I was elected to the Board as a director in 1902.

1739. In this matter as compared with the other witnesses you speak with considerably more experience?—I speak with the experience of the person who thought out this business and carried it into effect, and I also speak with knowledge of the policy of the Marconi Company prior to the time when I was appointed manager. Up to 1901 the Marconi Company had pursued a very similar policy to that pursued by the Telefunken and other wireless companies. It tried to make arrangements with Governments and with Government Departments and tried to sell its apparatus to shipping companies, but shipping companies did not find any utility in the mere purchase of a set of wireless apparatus.

1740. You have heard, or read, the evidence of the Naval delegates who represented to us, or several of whom did, that in their opinion the adoption of the Convention would be an advantage to the Marconi Company?—Yes.

1741. You abide by your opinion with reference to that?—I do. I attach more importance to it.

1742. There have been several references to different systems of wireless telegraphy. You were asked just now by Mr. Adkins whether it was equally easy to communicate by different systems. In what sense do different systems of wireless telegraphy exist?—The so-called systems are various methods of carrying out a particular invention, which is Marconi's invention. That is our view, and it is a view which has been sustained by the Courts. It is also a view which has been expressed, I believe, by the legal advisers of the Government. Before the Admiralty contract was made, opinion was taken as to the patent position, as I understand it, and certain views were expressed.

1743. Is it true that the transmission over long distances is easier by night than by day?—No, it is not correct. At the present time under the present state of the art, it is as easy to work by day as by night.

1744. That was stated to us as a fact by Mr. Babington Smith, I think?—But I think that Mr. Babington Smith did not speak as a

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technical witness. The fact is that at the moment it is just as easy to work by day as by night if you adopt proper means to that end, as we can do.

1745. I will not press technical points. We were told by Mr. Babington Smith that in Great Britain and Italy and Canada there was a preponderating number of Marconi stations, but that in all other parts of the world the stations, with very few exceptions, are on other systems. Do you accept that?—No, I certainly do not. First of all, the exception is a very big one. Great Britain, Italy and Canada. In Italy there are 15 stations, and in Great Britain nine, carrying on the public service. I am speaking of the public service, and not of stations established for other purposes. There are seven stations in the United States, and there are four stations in British North America. There are two Lloyd's stations—Port Said and another—on the Suez Canal, two stations in Belgium, one in Holland, two stations in the Argentine, and so on. I do not know whether there are any more. There are some in Brazil, I think. All these stations are carrying on a public telegraph service and transmitting the messages of the public on payment of a rate.

1746. At the discussions previous to the Convention, was there any suggestion made by the British delegates that enforcing intercommunication would be unfair to a company which had made this invention of practical working service to the world?—Was there any representation made to the Government, do you mean.

1747. No. In the discussion at the Convention, did the British delegates at all urge the unfairness which might result to the Marconi Company if intercommunication were enforced against their wish?—I think not. I do not think there was any representation of the companies interest *per se* except this—that Mr. Babington Smith said that in the case of Great Britain a well organised service already exists. That has been quoted already. Then he suggested that that service might suffer, I take that to be the suggestion from intercommunication. I do not find anywhere in the *Procès-Verbaux* any statement of our argument that we have spent a very large sum of money in establishing this service, and in developing it, and that it will actually be unfair.

1748. Was the prediction of the Marconi Company then not treated as a British interest, or not recognised as a British interest?—I do not find anything in the *Procès-Verbaux* which indicates that that point was specially considered. The general view of the delegates to the Conference I think was that the British Delegates were as much in favour of intercommunication and had as little consideration for the Marconi Company as foreign delegates. They were not regarded as holding any brief for the Marconi Company—in fact I think the impression rather was that they were slightly hostile to the Marconi Company.

1749. Colonel Daniel told us in reply to Question 886 that the other systems are on the upward grade now. Do you consider that the Marconi Company is being overtaken by other systems technically?—No, I certainly do not

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Our practical working range is greater than anybody's. Mr. Marconi has invented the direction system. He made a demonstration to the Admiralty, and showed them that by means of his direction system he could locate the position of a ship out of sight of land. With regard to tuning he is working a persistent wave system, which I do not think anybody could intercept without his assistance. We have received a letter from the Admiralty pointing out that they are not getting messages from this particular station, and without our assistance I do not think they are likely to get them.

1750. Has the Admiralty been made aware of this advance in technique?—I have not informed the Admiralty officially. I spoke to Admiral Jackson about it, and told him that we should be pleased to show it to him in working, or something of that kind. I do not think there has been any official communication. The patents are not yet issued.

1751. It is a little important. We had evidence from Commander Payne to the effect that the Admiralty had not received any new ideas from the Marconi Company for a considerable time. I think it was two years?—Yes. This patent has been applied for, but it is not yet published.

1752. You would assert in the first place that you are not deliberately holding back things from the Admiralty?—Certainly.

1753. And in the second place that you are making material progress in invention?—Certainly. It has been suggested that the other people are equal to us in range. The great difference between the Marconi range and the range of the other high power stations is that our service is a reliable service, and can be used day and night under all conditions. With regard to the others they are rather in the position that Marconi was in three or four years ago of being able to transmit over considerable distances but only uncertainly. The Nauen Station has been referred to. I regard the Nauen Station as obsolete Marconi practice. The Machrihanish Station was transmitting its messages or its signals over certain distances, but uncertainly and unreliably. All these people are following in Marconi's footsteps. They are getting information through the patents and in practical working, and when they get it they apply it as soon as they can.

1754. This is getting on to technical points, so that I had better ask Mr. Marconi about them?—Yes.

1755. With regard to the Admiralty system of wireless telegraphy, I think that Commander Payne refused to answer a question of mine upon it. Would you say that you also claim the right to refuse to answer questions on the ground of duty to your employers?—Certainly.

1756. The question was raised. I think that all the other points that I wanted to ask you upon have been covered by other members of the Committee?—Very well.

Mr. Sydney Buxton.

1757. In reference to the licences you said in reply to Mr Glynn and others that before 1904

Mr. Sydney Buxton—continued.

any company was at liberty to start a station where he liked either here or elsewhere?—Yes.

1758. As a matter of fact the Marconi company were the ones that did so, in the Channel especially?—Certainly.

1759. Since 1904, since the Act, it has been necessary to have a licence, as you are aware?—Yes.

1760. I think you are aware that the policy has been for some time past since that Act to be very chary about issuing fresh licences, for two reasons which you are aware of because of the experimental stage of the system of wireless telegraphy and also in view of what might occur at existing stations?—From a Post Office Return I know that certain licences in the Channel were refused on the ground that stations erected there would interfere with existing stations, namely, ours presumably.

1761. Might interfere?—Might interfere.

1762. Therefore so far as the position of the Marconi Company on the Channel is concerned it has been due largely to the fact that licences have not been issued to other companies, or have been issued with very great care?—I do not agree with that at all. In connection with the renewal of the Act we stated that we should be perfectly satisfied to abandon that protection altogether. We were aware that the Admiralty wanted this power to prevent people from erecting stations.

1763. I am not saying that it was at the instigation of the Marconi Company but I am asking was it not the policy under the Act?—I did not gather that. I thought you said that we wanted it.

1764. No, I did not say that. It does not matter for what reason, but as a matter of fact practically no licences since 1904 when the Act came into force, have been issued for Channel stations?—No, I understand not. On the ground of risk of interference they have been refused.

1765. We need not go into the reasons. Apart from any question of competitive systems and whether one is better than another or not, has not that given for the time being a practical monopoly to the Marconi Company as regards the Channel stations?—No; I do not think that it would be correct to say that it has given it. We had that practical monopoly that you describe before there was any Act at all. I think that the position which the Marconi Company has got in this matter is attributable to its having put down the stations and organized the service. Before 1904 we had all these ships.

Mr. Gwynn.

1766. Previously to 1904 had you enough stations to work the Channel, do you think?—Yes, we had.

Mr. Sydney Buxton.

1767. Since 1904 have others made considerable progress?—No, I think not. The Lodge-Muirhead claims to have anticipated Marconi. Marconi's first patent was in 1896. The Lodge invention must have been in existence then, as it must have been somewhere about 1895 that Lodge anticipated, if he anticipated. The Slaby so-called

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Mr. HALL.

[Continued.]

Mr. Sydney Buxton—continued.

so-called invention and the Braun so-called invention were in commercial operation in 1901, three years before the Act here and two years before the First Conference.

1768. Have not these companies developed in the last few years, just as you have yourselves?—Certainly I would not say that they have not developed at all. As I say, the Nauen station represents obsolete Marconi practice. They have erected a high-power station in Germany which is something like Marconi's stations of three or four years ago. They keep treading in his footsteps.

1769. In the absence of open competition the Marconi Company has erected these stations and the other companies have developed since. If there had been open competition and they could have put a station wherever they liked in the Channel they would have had a better opportunity of developing, would they not. Licences have been very gingerly granted?—I follow.

Mr. Gwynn.

1770. Has there been any corresponding unwillingness to grant licences for stations on the coast of France?—Certainly. We could not get a licence.

1771. But could the French companies, or the Telefunken Company, for instance, have got a licence on the coast of France?—They were in exactly the same position as we were in. On foreign territory we were all in the same position. We had to get a licence. On English territory up to 1904 no licence was required.

1772. I take it that advantage has accrued to you from the fact that licences have only been issued to the Marconi Company since 1904. Have you erected any extra stations on the Channel since 1904?—No, none at all.

1773. You consider that there was an adequate service before 1904?—We have exactly the same number of stations working commercially in the United Kingdom now as we had prior to 1904. We have had no licences for fresh stations.

1774. During the interval if it had been considered necessary a French company might have erected stations on the French coast to fill up gaps?—Yes.

Mr. Sydney Buxton.

1775. I suppose that geographically your stations on the English coast would be more suitable than similar stations that might be erected on the French coast for the Channel service and the American service?—Yes, geographically, but it is more a question of the importance of England than a question of geographical position; it is more a question of the importance of British territory as compared with French territory in that particular case.

1776. I do not say that it is due to the fact of no other licences being granted that the Marconi Company has this practical monopoly of the English Channel, but that being the case and no other licences being granted, is it not the natural thing that these liners coming along should be obliged to adopt the Marconi system?—They do not take it because it is not practicable to put up stations for other systems. The liners had the Marconi system when there was perfect freedom to erect stations.

1777. I am speaking of since the Act?—We had the North German Lloyd, for instance, before the Act.

1778. But I am speaking of since the Act. Apply your mind to since the Act?—We had these lines before the Act and I cannot conclude that any ship has taken the Marconi system since the Act, because there is no station on the English coast other than a Marconi station to communicate with.

1779. Since the Act licences have not been issued for that particular part for other systems, and therefore these liners are almost bound under existing circumstances to take the Marconi system?—Under existing circumstances—yes, but I do not agree that the fact that they take it is due to the absence of other stations, because when there was perfect freedom to erect stations on British territory they still took the Marconi.

Mr. Gwynn.

1780. You think that the coast was adequately served before 1904, and therefore there was no reason to erect stations along the coast?—Exactly.

1781. That is your point?—Yes.

Thursday, 18th April 1907.

MEMBERS PRESENT :

Mr. Adkins.
Mr. Sydney Buxton.
Sir John Dickson-Poynder.
Mr. Gwynn.
Sir William Holland.

Mr. Lambert.
Mr. Arthur Lee.
Sir Gilbert Parker.
Sir Edward Sassoon.

Sir JOHN DICKSON-POYNDER, BART., IN THE CHAIR.

Mr. J. GAVEY, C.B., called in; and Examined.

Chairman.

1782. You are the Engineer-in-Chief and Electrician to the Post Office are you not?—I was until Monday last; on Monday I retired.

1783. What other posts have you held?—I am a past President of the Institution of Electrical Engineers and a member of the Institution of Civil Engineers.

1784. Have you specially studied the subject of wireless telegraph?—I have had occasion on behalf of the Post Office to make a special study of the subject of wireless telegraphy from the year 1886 to the present date. I was appointed a British Delegate to the preliminary Wireless Telegraph Conference in Berlin in 1903, and to the last Wireless Telegraph Conference in 1906.

1785. Is the idea of wireless telegraphy a recent one?—The development of wireless telegraphy so called is a subject which has occupied the attention of telegraph engineers for a long period. No system can strictly be called wireless, except in the sense that communication is maintained between distant stations without any wire directly connecting them. There are practically four systems which have been devised to attain this end, although the first three are of very limited application.

1786. Will you describe the earliest system introduced?—The first may be designated the earth conduction system; and in using it two parallel or nearly parallel wires are erected, for example—on opposite sides of a stream or strait—both being fitted with telegraphic apparatus and both connected at each end with the earth. This system is of very limited application and it has no bearing on the modern methods of electric wave telegraphy.

1787. What was the next proposal?—The second system was based on electro-magnetic induction, but taken by itself its range is so limited that little practical use has been made of it.

1788. And the third system—what was that?—The third system was a combination of the first and second. This means of communication was taken up in the year 1885 by Mr. (now Sir William) Preece, who was then Electrician to the

Chairman—continued.

Post Office, and a system was devised which admitted of establishing telegraphic communication without direct connecting wires between places not more than six or eight miles apart. At a later period I was able to establish a wireless telephone service, based on this system of working, between the rocky Skerries and the neighbouring island of Holyhead, a distance of about four miles. I recently inspected this installation and found it was possible to exchange speech between the two stations with the greatest ease.

Mr. Arthur Lee.

1789. You say "exchange speech." Do you mean telephonic speech?—Telephonic speech

Mr. Gwynn.

1790. What was the distance?—Nearly four miles—three and seven-eighths.

Chairman.

1791. Did the Post Office largely extend that system?—No; because in the month of June, 1896, Signor Marconi came to the Post Office with a letter of introduction to Mr. Preece, and he proposed a method of wireless communication which has now superseded others, and which depends on the radiation of electric or Hertzian waves.

1792. Who discovered the Hertzian waves?—In 1867 Clerk-Maxwell developed mathematically the relation between electric waves and light waves, but at that period no instrument had been devised which could show the physical existence of electric waves. In 1886-7 Hertz carried out a series of classical experiments by means of a detector he devised, which showed that under certain conditions electric waves were radiated through the ether—that they could be reflected, refracted, or polarised exactly as light waves, and that they were practically of the same nature as light, and only differed therefrom in the length of the waves, due to the frequency of their vibration.

1793. What

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[Continued.]

Chairman—continued.

1793. What followed upon that?—In 1894 Sir Oliver Lodge exhibited a number of experiments—first at the Royal Institution in London and subsequently at the British Association meeting in Oxford—in which he caused signals to be recorded at a distance of 40 or 50 yards, and at a later period with larger apparatus signals were transmitted over a distance of half a mile. Signor Marconi then commenced his experiments in Italy, and Captain (now Rear-Admiral Sir Henry) Jackson carried out a series of experiments on board H.M.S. "Defiance." The problem these gentlemen undertook to solve was the design of suitable apparatus whereby Hertzian waves could be radiated from a transmitting station in the series of dots and dashes which form the Morse code, and to cause these waves to act on a suitable detector at a distance so as to actuate telegraphic apparatus and record the signals.

1794. What did the Post Office do at this stage?—It provided Signor Marconi with facilities for carrying out his experiments in the Post Office Laboratory, and in September, 1896, it arranged for a series of trials on Salisbury Plain. After further experiments in the Laboratory the Post Office provided stations at Lavernock, at the Flat Holm and at Brean Down, and in the month of May 1897 it carried out, under Signor Marconi's supervision, the crucial trials across the Bristol Channel that demonstrated the practicability of the system. Signor Marconi then disposed of his interests to a private company and his connection with the Post Office ceased.

1795. What defect characterised the original system devised by Marconi?—It was so constructed that every receiving station within range of a transmitting centre could read all the messages sent from that centre, and it was impossible for more than two stations in a given area to interchange signals at a given time without mutual interference.

Sir Edward Sassoon.

1796. May I ask what you mean by "within range"?—If we assume that a transmitting station is in the centre of an area with a radius of 60, 80 or 100 miles, all vessels fitted with apparatus within that radius would receive the messages sent from that transmitting station.

1797. What is it that determines the radius?—A number of factors, one is the amount of the energy that is being radiated into the atmosphere, but there are a number of factors that determine the radius.

Chairman.

1798. What steps were taken to deal with the latter difficulty—"mutual interference"?—All persons interested in the development of radiotelegraphy at once turned their attention to the design of methods free from this drawback of mutual interference. It was obvious that if it were possible to arrange certain selective devices which would admit of intercommunication between two sets of apparatus, so accurately adjusted one to the other that they would respond to one another's radiations, whilst at

Chairman—continued.

the same time other apparatus not so adjusted was not affected by the radiated waves, the problem would be solved.

1799. Has this end been attained?—Unfortunately, this ideal condition of things has not been fully attained. Perfect adjustments are difficult to maintain, and it is only when the various stations are separated by a considerable distance, when the Hertzian waves differ considerably in length, and when the power used for transmission of signals is limited, that it is practicable to tune out disturbance from other sources. On this subject, Dr. Fleming, the eminent consulting engineer to the Marconi Company, in his recent work on wireless telegraphy, states, speaking of disturbance from other installations: "It is impossible yet to define precisely the limits of affectation. The degree of 'sharpness of the tuning,' as it is technically termed, is to a large extent a question of skill on the part of the operator, and of the adjustment of the appliances. We have already shown, however, that receivers tuned for the reception of waves of such lengths as 300 to 1,000 feet (commonly used in ship to ship and ship to shore communication) can be rendered quite immune from influence by the longer and more powerful waves sent out from power stations." It may be said that the term "power stations" applies to stations with, say a wave length that may be said to exceed 5,000 feet (under the Convention above 1,600 metres, or 5,250 feet). In relation to the use of high power for transmission he remarks: "The second sub-problem concerned with violent interference has received practical solution to a large extent by the legislation controlling wireless telegraphy in various countries, and such attempts to prevent communication have been rendered less important by being made illegal. Any form of telegraphy, with wires or without, can be rendered impossible if an antagonist is permitted to employ sufficiently powerful means of disturbance in proximity to the victim. The prevention of such interference is not more within the scope of the normal scientific problem of syntonony than the measures to preserve peaceable citizens from assassination and assault come within the range of preventive medicine."

1800. Now what bearing has the Berlin Convention on this question?—This argument as to the beneficial effects of recent legislation assumes a much higher degree of importance when it is applied to international action founded on an international convention than when it is limited to local legislation. In the narrow waters surrounding the United Kingdom, it is practically impossible with the methods in commercial use to isolate all the wireless stations on either side of the English Channel or the North Sea, or to limit their radius of action so as to obviate all interference, and without regulation or friendly co-operation between neighbouring States as the wireless traffic increased, chaos would supervene wherever the traffic became considerable.

1801. But would this result follow if different systems were used?—Much has been said in the past in relation to so-called different systems of radiotelegraphy, but so far as the transmission

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Chairman—continued.

of messages by Hertzian waves is concerned it might be argued that there is but one system, and that the different types of apparatus introduced by various inventors might be classed rather under the head of different methods.

Mr. Arthur Lee.

1802. Excuse me; would you apply that remark to the Poulsen system?—Well, I think so. Be that as it may, however, intercommunication between all so-called systems that have so far been practically used is possible, and unless suitable precautions are taken, interference between all such systems working in a given area is not only possible, but, unless special precautions are taken, is inevitable.

Chairman.

1803. Can you give us any illustrations of that?—Yes. For instance, signals from Marconi's Poldhu station to Atlantic liners are read, not only at all British stations, but I received them myself at the German station at Nanen, near Berlin, a distance of about 800 miles from Poldhu, and likewise at the Dutch station at Scheveningen, both these stations being fitted with Telefunken apparatus. They are also read daily at the Post Office stations at Hunstanton and Skegness fitted with the apparatus designed by the De Forest Company. Again, there are two stations at Newhaven and Dieppe respectively, established in connection with the Brighton and South Coast service and fitted with French apparatus known as the Rochefort system. The signals between these two stations are constantly read at every other radiotelegraphic station between the Scilly Islands and Dover, and along the East Coast of England. The experimental stations at Oxford and Cambridge fitted with the De Forest apparatus can be read at most of the coast stations in the East and South, and examples could be multiplied.

1804. Is there any method of obviating this interference?—Within limits, yes. A certain measure of success has been achieved in cutting out interference between neighbouring stations by a suitable allotment of wave lengths, and by the adoption of receiving apparatus specially adapted for the reception of particular wave lengths. There is, however, in every case what may be termed a critical distance, within which, under ordinary conditions, interference takes place, notwithstanding these precautions, and the greater the power used in transmitting the signals, the greater the distance at which this mutual interference is felt, quite irrespective of the length of the waves used.

1805. Does the Convention deal with these problems?—Yes. In considering the question of international telegraphy the Conference had to deal not merely with questions of high policy, but with the practical methods to be adopted in order to avoid mutual interference between neighbouring stations, and to regulate the traffic to and from all ships communicating with coast stations so that it might flow smoothly and uninterruptedly. With these objects in view, the regulations were most carefully considered, and

Chairman—continued.

after a very exhaustive inquiry and full debate they were so drawn up as to guard against all difficulties that could be foreseen by all the delegates who had practical experience of radiotelegraphy.

1806. Now, will you explain to the Committee how the Convention deals with the question of wave lengths?—In Articles II. and III. of the Regulations it is specified that two wave lengths should be appropriated for the service of general public correspondence, and 300 and 600 metres respectively were ultimately selected. These lengths are sufficiently wide apart to admit of the establishment of shore stations within a reasonable distance of one another, which, when fitted with the most up-to-date apparatus, will not interfere with each other. The normal wave length on board ship is to be 300 metres, so that any ship may at all times place itself in communication with any other ship within range, in the event of danger or difficulty which might imperil its safety, or to admit of its imparting information vital to the safe navigation of other vessels. I am of opinion that these wave lengths are appropriate for the purposes for which they are intended. Wave lengths between 600 and 1,600 metres are excluded from commercial use, and entirely reserved for Government purposes.

1807. What would you estimate a reasonable distance to be—how many miles?—A reasonable distance between stations?

1808. Yes, between stations?—I agree with the evidence that was given by Mr. Babington Smith, that shore stations could be placed at a distance of 50 miles apart so long as those shore stations were under strict regulations such as those drawn up by the Convention; but if there were no strict regulations which all stations were bound to obey there would be very serious interference between stations 50 or even 100 miles apart. It is all a question of strict regulations with a power of enforcing them.

1809. So that really distance does not come into it very much; it is a question of regulation?—It is very largely a question of "Regulations," because without regulations limiting the amount of energy to be used, the wave length, and giving a number of other specific details, interference, as I have pointed out in the early part of my evidence, might extend over half the United Kingdom.

1810. You mean to say you would get as much interference at a distance of 50 miles with a bad "regulation" system as you would at a distance of 25 miles?—Yes.

1811. Now what other regulations have been agreed to with a view to ensuring efficiency in apparatus and working?—Article VI. of the Regulations lays down numerous important conditions in order that the service on board ship shall be conducted in an efficient manner. In the first place, it renders the use of syntonised apparatus imperative; in other words, it provides for the employment of instruments in which the transmitting apparatus is so adjusted as to communicate with receiving apparatus which has a corresponding adjustment, and to produce as little effect as possible on other receiving apparatus not having a corresponding adjustment. In the second place, it disqualifies imper-

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Chairman—continued.

fectly designed apparatus by specifying the minimum speed of transmission which will be accepted as satisfactory. It is obvious that where much traffic exists, it is of importance that each station should occupy the common ether in any given region or area for as short a period as possible; thirdly, it restricts the area of mutual interference by limiting the electrical power to be used in transmission, and this is further emphasised in Article 28. These regulations guard against the danger so strongly emphasised by Dr. Fleming; and fourthly, it ensures the appointment of skilled telegraphists by insisting that the operator shall possess a Government certificate to the effect that he has the qualifications necessary for the effective performance of his duties. Without such qualifications an unskilled operator might block the whole service of a given area for hours in futile endeavours to communicate, and this absolutely without redress in the absence of an International Convention.

1812. What disciplinary measures does the Convention prescribe?—Articles VII. provides for dealing with breaches of the regulations either at shore or ship stations. This is a most important provision, but as it has been commented upon by other witnesses I need not go into detail at present.

1813. Are there any other regulations you would like to mention bearing on the working of Radiotelegraphy?—Articles XV. to XXIX. provide international rules which must be observed in all cases in the interchange of general public communication. They are based on the general experience of the delegates of the working, not only of Radiotelegraphy, but of international telegraphy generally. They will be subject to amendment and revision as the art is developed. Article XXX. is of very great importance in relation to non-interference, in so much as it specifies that the ship station shall, as a general rule, send its message to the nearest shore station, so that it removes the temptation to use abnormally high power in order to exchange its traffic with distant stations; and further, it imposes the limit that it shall only send messages to a distant station at the specific request of the passenger who hands in the telegram, and when this can be done without interfering with other transmissions.

1814. How will these regulations affect existing commercial stations?—These regulations are of immense importance to this country in connection with the uninterrupted working of the existing wireless stations, more especially those which are established along the South Coast. The natural route for all vessels to or from America which traverse the English Channel is along the southern shores of the United Kingdom. Many vessels from the Mediterranean and the southern portion of the Atlantic, after passing Ushant, make for one or other of the well known points of the South Coast of England. All these vessels will, under the regulations of the Convention, communicate either with the existing English stations or with English stations provided for general public correspondence, if these have to be established, and it will be possible to arrange for the smooth and

Chairman—continued.

equable interchange of traffic as ships pass up and down the Channel. Such a state of harmonious working will only be possible by the ratification of the Convention. Without such ratification it is highly probable that the working of the existing commercial stations would be rendered impossible, or if not so, at all events would be conducted with extreme difficulty. It is very certain that the other countries who have signed the Convention will not submit for an indefinite period to the terms under which alone they can at present obtain commercial service at British stations along the English Channel, these terms limiting them to intercommunication with ship and shore stations fitted with Marconi apparatus and debarring them from communication with all other stations. There is very little doubt that when the Convention comes into force, if it be not ratified by Great Britain, the large liners belonging to other European nations will be fitted with extra powerful apparatus to admit of their communicating while skirting our coasts with Continental stations along the coast of France, Holland, Belgium, and Germany, and in doing so they will render the working of the existing commercial stations in this country very difficult, if not impossible. There will be no redress in the event of interference with English stations, for these vessels will only be carrying out their legitimate business in the manner forced on them by our non-ratification of the Convention.

Mr. Arthur Lee.

1815. I assume that it would be possible for our Coast Stations to so interfere with them that they would not be able to carry on their work?—No doubt. There would be, quite possibly, the declaration of a general wireless war in which everybody would suffer.

1816. I thought you were suggesting that only England would suffer?—I was rather suggesting that if the Convention were not ratified England would be the principal sufferer, because England now does the greater portion of the radiotelegraphic traffic in Europe.

Sir Gilbert Parker.

1817. Would it not work the other way as well. If England has the bulk of the traffic in the radio-telegraphic area, would she not be in a position of peculiar advantage?—The simple advantage would be that she would probably interfere with all other stations, and stop foreign vessels from transmitting their messages by radiotelegraphy, but she would suffer in the same degree because they themselves could stop the English stations from receiving messages; in fact it would be general chaos, and radiotelegraphy would cease to exist until peace was declared.

Mr. Lambert.

1818. Would not England, if she had a larger number of wireless telegraph stations suffer more than others; would she not suffer in proportion to the number she had in excess of other Powers?—Unquestionably, because she would

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[Continued.]

Mr. Lambert—continued.

would lose the whole of the traffic she has at present, the other countries having at the present moment very little traffic.

Sir Edward Sassoon.

1819. May I ask how you account for this militant condition not having taken place so far?—Very largely, I think, because of the Preliminary Wireless Conference in Berlin. When an invitation was sent to this country to join the Final Conference, that invitation was accepted, and naturally in view of the possible peaceable and friendly solution of the difficulties, Continental nations had no desire to interfere with English traffic.

Mr. Arthur Lee.

1820. You do not think that the absence of interference has been due to the efficient organisation of the Marconi Company?—The efficient organisation of one company would have very little effect in preventing interference from hostile stations. The "efficient organisation" deals rather with the uniform and regular flow of traffic; but the possibility of interference from stations within range depends very much on the power used and the goodwill of the people who control those stations.

Chairman.

1821. Do I understand that you believe that those regulations which you have enumerated will be complied with?—If the Convention is ratified and if its terms are loyally accepted by British stations, it will preserve their business intact at all their existing shore stations, and undoubtedly it will lead to a material increase of their work as radiotelegraphy develops. I think I might even go further and urge that in my opinion whatever this country might have attempted in the shape of restriction or of monopoly, an International Radiotelegraphic Convention was inevitable, and the 1906 Convention is certain to be ratified by all the countries bordering on our narrow seas. If this country desires to maintain its radiotelegraphic commercial work it can only do so in agreement with its Continental neighbours, and by endeavouring to work loyally with them under such regulations as have been drafted, or as may in the future be found necessary.

1822. Are there any other points you desire to bring before the Committee?—I think not, Sir.

Mr. Gwynn.

1823. You were saying just now that if the Marconi Company were left in a position of hostility to the Convention, assuming the Convention to be ratified, the liners would equip themselves with more powerful apparatus than they have at present. What is the ordinary range of the liners' apparatus at present?—It varies between 60 and 150 miles. The range of apparatus is very variable, due to the different conditions in the ether and the atmosphere, but the average range might be taken, perhaps, at 80 miles.

Mr. Gwynn—continued.

1824. Would not apparatus with a range of 60 or 150 miles be adequate to communicate across the Channel to France and Nauen, Belgium and Germany?—Not with absolute certainty; and I think there is no doubt that the foreign liners would fit up more powerful apparatus so as to be able to communicate in many cases direct with their own shores.

Mr. Arthur Lee.

1825. Nauen?—Hardly with Nauen; probably with the coast stations in Holland, Belgium and Germany. Nauen is an experimental station at the present time, I should say.

Mr. Gwynn.

1826. I do not quite follow what you mean when you say "to communicate direct with their own shores"—to communicate at very long range with their own shores?—As they were travelling up the British Channel they would probably want to communicate with the French station at Ushant and along the Coast to the south of the British Channel.

1827. Would not the existing stations and apparatus enable them to do that?—Not with absolute certainty. I think there is no doubt that in order to communicate under all conditions they would certainly put in more powerful apparatus.

1828. When Mr. Marconi came in the first instance to the Post Office with his apparatus, did he offer his invention to the Post Office before he disposed of it to a private company?—I think there was some conversation on the subject, and the matter was under consideration at the time that Mr. Marconi announced the fact that he had joined hands with the Marconi Company.

1829. How do you mean "that he had joined hands with the Marconi Company"?—That he had sold his inventions to the company now known as the Marconi Company.

1830. A company which was created in order to take his name?—Exactly.

1831. Do you mean that the negotiations were abruptly broken off?—I should not like to say that; I infer nothing. I do not want to make any statement that may be considered as casting a reflection. All I can say is that there were negotiations, and that Mr. Marconi broke off the negotiations and joined hands with the Company.

1832. You said just now that if England stood out there was no question that all the countries bordering on the narrow seas would sign this Convention. Do you take it as certain that if England refused to ratify no other country would follow the example of England; that France, for instance, might not follow the example of England?—I feel morally certain that neither France, Belgium, Holland nor Germany would decline to ratify the Convention.

1833. What value do you attach to the clause in the Convention enabling Great Britain to have exempted stations?—I think it is valuable from very many points of view, but to my mind its great value is that the Government remains master in its own territory. If the Convention be ratified, this country undertakes to provide

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[Continued.]

Mr. Gwynn—continued.

reasonable facilities for international communication, and those facilities it can provide as it may think desirable; but, on the other hand, outside international communication, it has an absolute right to do exactly as it likes in the matter of all other wireless stations.

1834. We understood, I think, from Lieutenant Loring that in his opinion the number of stations on the Channel could not be increased without injuring the service?—I rather understood him to say that the number of stations along our southern coasts are quite sufficient for the amount of traffic they now carry, and that under more exact regulations they could carry a great deal more traffic, because at the present time there is no doubt that a lot of the work that is done at the radiotelegraphic stations consists of idle talk. I understood him also to say that it was undesirable to increase the number of stations, but not that it was impossible.

1835. Not that it was impossible, but that it was undesirable?—Yes.

1836. Then would it be possible, consistently with the terms of the Convention, to exempt a station on the South Coast?—To exempt a station on the South Coast?

1837. Yes?—Any station can be exempted by the Government.

1838. Any stations could be exempted by the Government, but the Government is under the obligation, is it not, to provide another station open for public work which will serve the same area?—Not necessarily in immediate proximity to the other. I think the terms which the Government would have to adhere to ought to be construed more widely than the honourable Member's question would seem to indicate. There is a region to be served, we will say, from the Fastnet to the Straits of Dover, and it would be for the Government to determine the number of stations necessary to deal with the traffic between those two points and to place them in such localities that they could deal with the traffic in a satisfactory manner and without interfering with other stations. It is a very simple technical problem—partly engineering, partly traffic; and I do not think it need give rise to any difficulty either in its inception or in its operation.

1839. I am afraid I do not quite follow. I understood you to say that Lieutenant Loring, who has been working the naval wireless telegraphy along the South Coast, was of opinion that the number of stations along the South Coast could not be increased without detriment to the service?—I did not understand that he went so far. I understood him to say that it was undesirable to increase the number of stations; and obviously in the present stage of radio-telegraphy it must be undesirable to increase the number of stations beyond what is absolutely necessary to carry on the traffic; and it is not merely, I should say, a question of the commercial traffic, but it is a question also of undue interference with our naval stations, which, of course, extend all along the South Coast of Great Britain.

1840. Those stations may be taken as representing possibly the minimum necessary. Suppose you exempt one of those stations, are you

Mr. Gwynn—continued.

not obliged by the terms of the Convention to provide a station which will do for commercial purposes, for the advantage of the public, the same work that that station is doing?—If you provide a station, that would serve the region; but "region" may be an elastic term. It is for the Government to determine what the extent of the "region" shall be, and how near the additional station, if one is necessary, shall be placed to the exempted one.

1841. Would it be possible to exempt one of these stations and add another station without deranging the service in the Channel?—It would be possible.

1842. That is to say, you might exempt one of those stations but, according to the number that you exempted the difficulty of meeting the problem would increase?—I do not think there would be any very great difficulty. If the whole of the British stations on the South Coast were exempted, I do not think there would be any very great difficulty in providing alternative stations to do the work.

1843. To do the work along the Channel?—Along the Channel.

Mr. Adkins.

1844. If the whole of the South Coast were exempted?—If necessary. I agree with Lieutenant Loring that it would be an undesirable course, but it would be a possible course.

Chairman.

1845. What is the approximate cost of a station?—The cost of a station varies very much according to the range. I daresay, probably the Marconi stations, or the stations along the South Coast, could be provided for about £500—anything between £500 and £1,000, according to the nature of the equipment.

Sir William Holland.

1846. Did I understand you rightly to say that in your opinion unless the Convention were ratified the present commercial use of a system of wireless telegraphy would be jeopardised?—I think there is the greatest danger of its being jeopardised if the Convention is not ratified.

1847. Could you shortly summarise the reasons why you think it would be placed in jeopardy?—In the first place, Sir, I think, granted that other nations ratify the Convention, they will be anxious to fit their own ships—their own large liners—with apparatus of their own design. Those vessels will have to communicate with shore stations, and in the first place our southern stations would immediately lose the whole of the traffic that we derive from them at the present moment; in the second place, as I have said before, the use of powerful machinery—a large amount of energy—would unquestionably interfere with the working of the commercial stations; and I am afraid that would also tend to very largely interfere with the naval interests at the naval stations along the South Coast.

1848. Did you go so far as to say that in your opinion a wireless war would be almost inevitable if there was a failure to ratify the Convention?

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Sir William Holland—continued.

tion?—I do not see that any other course would be possible, because, although it may not be necessary to assume that vessels fitted with foreign apparatus would deliberately interfere, they would interfere in the ordinary carrying out of their work; and in that case this country would have absolutely no redress. At the present time one of the greatest safeguards that this country holds, and one of the greatest benefits it will derive from the Convention, amongst a number of others, is that every station, whether a long distance station or an ordinary ship to shore station, will have to conduct its business in such a way as to avoid interference as far as possible, and that, I think, is one of the very great benefits that this country will derive from the terms of the Convention. If the Convention is not ratified this country has absolutely no redress, whatever any other countries may do either in their ship to shore traffic or in the erection of high power stations, which might even very seriously interfere with any similar stations we may equip in this country.

Sir Gilbert Parker.

1849. What prevents interference now? The Convention is not at present ratified, and there are no universal regulations. Why should there not be now (or is there?) a great disturbance?—The disturbance does not exist at the present time to any material extent, because all the liners are fitted with the Marconi apparatus, manned by Marconi operators, and working under one administration; and so long as that condition of things exists, there is no reason why disturbance should be anticipated; but we anticipate disturbance when each nation establishes its own wireless system, and all these vessels fitted with different apparatus traverse the narrow seas around our coasts, unless they work under the regulations of the Convention.

1850. Then there is no reason to suppose that other Governments would accept the Marconi system, as most of them have, for instance, accepted the Morse system?—I do not think, Sir, the two questions are quite parallel. The Marconi system does not differ very largely from any other system. In the case of the Morse system, it is a general convenience for all countries to use the same system of signalling, and therefore the Morse system is in general use, although it has been largely replaced on many international lines by other types of telegraphic apparatus; but in the case of other countries (or of a country) introducing the Marconi system, the Telefunken system, or any other system, it is not so much the question of what apparatus is used; it is a question of the regulations that are necessary to prevent the use of undue power; to ensure that skilled operators shall be employed; to ensure that the apparatus itself shall be the best; and to ensure that the regulations which have been drawn up with such care in order that the traffic shall flow smoothly, shall be adhered to. It is a question really of bringing these regulations into force rather than a question of the system that is employed; but without the Convention no such regulations would be enforceable in relation to communication with this country.

Sir Gilbert Parker—continued.

1851. Can you say whether foreign nations have developed their own system to any extent up to the present time?—I have had opportunities of inspecting the most modern wireless apparatus developed by most inventors, and I think they are all nearly on a par so far as perfection is concerned at the present moment. I should find it very difficult to say that any one system of wireless telegraphy was so far above any other that it ought to be selected and all the others set aside.

Mr. Arthur Lee.

1852. I think Sir Gilbert Parker was referring, not to the instrument, but to the organisation for prevention of interference?—I introduced the honourable Member's question as meaning the system of apparatus in use.

Sir Gilbert Parker.

1853. Yes, the organisation; I mean as apart from purely private organisation—private service—whether the Governments of other countries are developing a system; as, for instance, our Admiralty here has developed a system of their own. It was upon that point I put my question?—For commercial purposes?

1854. For commercial purposes, yes?—In Europe there has not been much development of radiotelegraphy for commercial purposes by other nations than Great Britain, but there have been developments abroad; for instance, I observe that in the United States there are some 43 ships skirting the coasts of the United States that are fitted with the wireless apparatus and the Western Union Telegraph Company, the largest of the companies providing telegraphic service in America undertake to transmit messages from all their stations to the wireless stations along the coast for transmission to these ships so that there they appear to have adopted a definite organisation for radiotelegraphic purposes quite apart from the instrument.

Mr. Arthur Lee.

1855. Can you say whether this organisation that you refer to in America is doing any actual commercial business?—I have no facts on that. I can merely state that this Tariff Book that I have here publishes a list of the ships and of the tariff rates, and states that they are prepared to accept messages from all parts of America.

1856. But I gather you are unable to say whether that is anything more than an organisation on paper?—I cannot answer that.

Chairman.

1857. What is the system that is used in that organisation?—The system of apparatus they use is mostly the Fessenden and the de Forest. They also have some Telefunken apparatus in America.

Mr. Sydney Buxton.

1858. They intercommunicate there, do not they?—They intercommunicate there. I may say, Sir, I have summarised the printed return of the stations that have been established in every country in the world and the results given there

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Mr. Sydney Buxton—continued.

there. Perhaps I might be allowed to put in that statement, Sir. (*Vide Appendix No. 7.*)

Sir Edward Sassoon.

1859. Can you say whether the ships fitted with the Marconi apparatus intercommunicate with the different systems to which you have just alluded, for instance, the Telefunken?—I have no personal knowledge, but I understand the Marconi Company issue stringent orders to their vessels not to communicate with other systems, and I assume that they do not.

Mr. Adkins

1860. I want to ask you, first of all, about the immediate past. Do you agree with the statement that Mr. Cuthbert Hall made to us on Tuesday last, that the German Government tried to prevent the ships of the great German liners from having the Marconi system upon them?—I cannot answer that question from personal knowledge, Sir, but I think the German Government first took action when the Marconi Company refused to accept messages from certain of their vessels.

1861. From vessels not fitted with the Marconi system?—From vessels not fitted with the Marconi apparatus.

1861*. Do you agree that the German liners have resisted the pressure of their Government because they find it more convenient to retain the Marconi apparatus with its restrictions?—I should say, Sir, that they find it more convenient in this sense, that they want to communicate with British stations as they go through the English Channel and at the present time they can only do so by fitting their vessels with Marconi apparatus.

1862. And do you agree that similar events have happened between the French steamship companies and the French Government?—I should say that the French steamship companies have adopted the Marconi apparatus for precisely a similar reason, that they want to communicate with our stations.

1863. I was wondering whether you could tell us from your own knowledge (or from inquiries) whether you understood that those companies have hitherto resisted repeated pressure from their own Governments to make other installations?—I have no reason to think that the French Government has brought any pressure to bear on French vessels.

1864. Suppose the treaty were ratified by Germany and France, for instance, and not by Great Britain, and that Great Britain continued its present arrangements, in your judgment would there or would there not still be strong practical reason for these great liners continuing to use Marconi methods?—I think that whatever the German and French Governments may have done or not done in the past, if they ratify the Convention and Great Britain does not, they will certainly bring very strong pressure to bear on all the large steamship companies to adopt the system that is in use in that country itself—the Telefunken in Germany and the French system in France.

Mr. Adkins—continued.

1865. I agree. Are you able to give us any further guidance on the point as to whether the commercial inducements in opposition to such pressure would be overwhelming? Let me try to make myself clear. Do you think it would still be so much to the advantage of the German and the French ships to communicate with the English shore stations, having adopted the Marconi system—that there would be a reasonable prospect of their resisting their own Governmental pressure?—If they had no other stations to communicate with but the British stations they would no doubt resist the change; but I think we must consider the fact that these other countries will establish their own stations; there would be a line of radiotelegraphic stations along the French coast of the English Channel, and that would remove the commercial reason which might otherwise tend to prevent steamship companies from abandoning the Marconi Company; in other words, the French vessels would get their communication with the French coasts instead of with the English coasts.

1866. Is it your view that these other stations on the south of the Channel have hitherto not been put up because the Powers in question preferred to wait for the upshot of the Convention?—I think that is very probably so.

1867. I want to know—that is the only reason you wish to give?—That is the principal reason.

1868. The principal reason for what appears like delay in that particular?—Precisely so. The French Government have no particular object in providing the commercial stations. They provide naval stations. They had no particular object to serve in providing commercial stations.

1869. Forgive me. If it were to the advantage of the French commerce that the English stations should be made use of (as they have been up to now), would it not seem to be to the advantage of French commerce that the English stations should be made use of even if England did not ratify the Convention?—Not necessarily so. If they want telegraphic communication, and they can obtain it through French stations instead of English stations, they are as well off as they would be otherwise.

1870. I want to get as far as I can from you an answer to the question whether in your judgment France, which has not put up commercial stations hitherto, would do so if she ratified the Convention and Great Britain did not?—I should say that France has not put up commercial stations because she thought they were not likely to pay; and I am afraid as a general rule it may be taken that at the present moment radiotelegraphic stations do not pay either in this country or elsewhere.

1871. Would they be more likely to pay if she and the other countries had ratified the Convention and we had not?—It would become an international obligation then.

1872. My question is this: I understood you to say that France has not put up commercial stations on her coasts, probably because she did not think they would pay, and that it was satisfactory for her commerce that she should be
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Mr. Adkins—continued.

dealt with through English stations by ships using Marconi methods?—Yes.

1873. If the Convention were ratified by France among other Powers and not by Great Britain, would it then be commercially a profitable thing for her to put up the shore stations that she has not put up, up to now?—Probably not, but it would become an international obligation to provide shore stations for ship to shore work.

1874. Because the English shore stations would be unavailable, they being limited to the Marconi?—Yes, that is the reason.

1875. That is to say, if we did not ratify and continued to refuse intercommunication?—Quite so.

Mr. Arthur Lee.

1876. I see that the Marconi Company's witness stated that "in anticipation of ratification the French Government has come to a preliminary decision to erect about eight stations on the French coast. That again points to the fact that the Convention is going to encourage the erection of stations rather than to discourage it." Do you agree with that?—It may be so, but to a great extent it is British traffic that we are concerned in mainly; and one of the "regulations" makes it imperative that vessels shall communicate with the nearest coast station, and if the Convention is ratified so long as the traffic approaches the English coast station it will have to pass through these stations rather than through stations on the French coast. I should like to add, Sir, (turning to Mr. Adkins) in answer to your question, that, whatever advantages might be derived by the foreign steamship lines in the retention of Marconi apparatus, if this country fails to ratify those lines would have to abandon the Marconi apparatus in order to comply with the terms of the Convention. In other words they will have to intercommunicate with all other International stations, and they can only do that by abandoning the Marconi system.

Mr. Adkins.

1877. I follow you, and I want also to ask you this: You think in the case of France, for instance, she would be willing to ratify an International Convention which would put her to unremunerative expenditure in the way of shore stations?—I think so, because after all the cost of a few shore stations is a very small addition to the cost of the telegraphic service of a great country like France.

1878. Possibly; and if those shore stations were put up your view is that if we were out of the Convention, France and Germany notwithstanding, those shore stations would impair the commercial value of our shore stations?—Unquestionably.

1879. Although France had not thought it worth while to put them up, up to that time?—Although she has not done so up to the present.

1880. I understand you to say that the reason why things have worked well up to the present time is because most of the great liners have taken to the Marconi apparatus, and wireless

Mr. Adkins—continued.

telegraphy in the English Channel is organised practically by the Marconi Company on one system?—That is so.

1881. Do I understand you to say that it is not because of there being different systems, but because it is under one management that it has been smoothly worked up to now?—Yes.

1882. And is it your opinion that the Regulations of the Convention would ensure equally good management with the single management of the Marconi Company as it exists now?—Of course it may be stated generally that a single management of a great commercial enterprise is perhaps preferable to a divided management, but when it becomes impossible to maintain a single management, as I think it would be absolutely impossible to maintain a single management in radiotelegraphy, either in Europe or all over the world, then the only alternative is to bring the people who are going to manage the divided interests together, and to draw up regulations; and that is practically what has been done by the Convention.

1883. Then may I put it in this way—that monopoly, if it could be maintained, would be the most simple, and in the next stage co-operation is far better than free competition?—That is so, unquestionably.

1884. And in your judgment the monopoly cannot be maintained; therefore the next best thing, co-operation, is the policy which would be secured by the Convention?—That is so. I think it is absolutely hopeless to expect to maintain even the very limited monopoly that now exists, and that to extend that monopoly is absolutely and wholly impossible.

1885. In that respect monopoly has not been interfered with seriously up to now, because the Great Powers were waiting for the Convention method?—There is no doubt that is the reason.

1886. Of course, this "organisation" would imply that the operators on the ships were acting under exactly the same code of regulations as the operators on shore?—Absolutely.

1887. And they would be failing in their instructions if confusion resulted?—Not only would they be failing in their instructions, but they would be liable to serious punishment.

1888. Exactly. Now I want to ask you a little more about the reservation of stations by Great Britain. If the new station which under the Convention Great Britain would have to put up to take the place of an existing station reserved—if that is to serve for general commercial purposes in the same area—what advantage is there in reserving the other station at all? Perhaps before you answer that I might elaborate my question: I understand that the Naval uses are discriminated from the commercial uses by means of different wave lengths?—Yes.

1889. Bearing that in mind, what advantage is there in reserving a station when you have to supply another one which caters for the same area?—If the station which might be reserved is prepared to work under the regulations of the Convention then there is no advantage; but it is conceivable that there might be reasons why it would be wise and judicious to reserve a station; it might facilitate the dealing with the traffic.

If,

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Mr. Adkins—continued.

If, for example, one station were reserved for a certain number of liners, and another station opened within a reasonable distance for general communication.

1890. Forgive my interrupting you. Supposing that were the case, do you consider that that would be a reservation within the meaning of the Convention, or do you mean that the station reserved for a certain number of liners might be subject to some special method outside the Convention?—They would have to adhere to the general terms of the Convention; such regulations as are necessary in order to prevent confusion and interference would all have to be observed.

1891. That is one of the kinds of reserved stations contemplated by the Convention, is it?—It is one of the kinds of reserved stations that it might be wise to establish.

1892. Can you give me any further illustration as to the value of reserving stations?—There is a right to reserve stations that cannot intercommunicate owing to the introduction of new methods, and generally speaking it is well that the Government should reserve in its own hands the right to do what it pleases in its own "house" quite apart from international communication. If the Convention is ratified, international service must be provided for; but in every other respect the Government has a perfectly free hand to do what it likes in relation to wireless stations subject only to the limitation that they must not interfere, or interfere as little as possible, with other stations.

1893. I suppose there is no question that if the Convention were ratified by Great Britain, all ships wishing to communicate with our shore stations could do so as easily if they had other than Marconi apparatus as they could if they had only Marconi apparatus?—Absolutely.

1894. Therefore of course, from the point of view of the Marconi Company, it would let in other competitors very considerably particularly those competitors who sold apparatus?—It would let in competitors for the supply of apparatus—yes.

1895. Therefore with regard to the effect of the Convention in that particular its effect on the Marconi Company is one thing, but its effect on the powers and position of Great Britain is quite another?—Yes, but it remains to be seen if the Marconi Company would suffer in any degree by the ratification of the Convention.

1896. Of course an inquiry into that is not our special object in this Committee, though we should regard it?—No, it is not.

1897. Still, I would like to ask one question on it if I may. Surely, if the Convention was ratified by Great Britain, and generally accepted and ratified by the nations who have agreed to it, there would be no object then on the liners of Germany or France having Marconi apparatus rather than any other which their Governments were interested in, provided that each of those could with practical equality transmit, would there?—There would be no reason. On the other hand, I think there is no reason to assume that if Great Britain ratifies the Convention,

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Mr. Adkins—continued.

these German liners will abandon the Marconi apparatus; and I have a strong impression from what I gathered on board one of the North German Lloyd liners at Bremen, that probably if Great Britain ratifies the Convention these vessels may make no change; on the other hand, if the Convention is not ratified they will be compelled to change.

Mr. Arthur Lee.

1898. I suppose the installations on the vessels are not the property of the Government?—No, so I understand.

1899. They are the property of the Marconi Company?—I have always understood so.

1900. Then if they ratified and we did not ratify they would be compelled to change?—The Marconi Company would have to remove its apparatus.

Mr. Adkins.

1901. With of course proper compensation for the breach of the legal relations that these companies had entered into with them?—Assuming that any compensation could be claimed.

Sir Gilbert Parker.

1902. Do you think foreign Governments would interfere so far with private enterprise as to necessitate their doing that?—They would have to do it; those Governments that ratified would have to license their ships for intercommunication. The necessity to intercommunicate would render it impossible to maintain the Marconi apparatus on those ships; and the shipowners—the North German Lloyd and others—would have to fit up apparatus of their own, and observe all the regulations as to intercommunicating.

Mr. Sydney Buxton.

1903. You mean under Articles I. and III. they would be bound to limit their ships to carrying the system which did intercommunicate?—Exactly.

Sir Gilbert Parker.

1904. You think undoubtedly that other Governments will make a Convention between themselves if England stands out—that they still will ratify the Convention?—Undoubtedly; it is morally certain that it will be so.

Mr. Adkins.

1905. I undertood you to say that if we did not ratify the Convention it would lead straight to a wireless telegraphic war?—I am afraid that would be the outcome.

1906. Are you able to tell the Committee anything further on that contingency? Should you like to say which side you think would win in such a conflict?—I think after a great waste of energy and the loss of all the traffic in the interval we should have to go and ask somewhat humbly, cap in hand, to be allowed to join the Convention.

1907. I want to know your view. Your view is at any rate that you do not think Great Britain

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Mr. Adkins—continued.

Britain is in a position to contemplate that state of war with equanimity?—Certainly not.

1908. I only want to know your view. There is another point which I think bears a little on that. I understand as regards this Convention that some of the countries are anxious to have ship to ship communication?—That is so.

1909. And Great Britain is not?—That is so.

1910. If other countries do have ship to ship communication, will not that in itself be a considerable interference with the smooth working of ship to shore?—I think not, Sir. First of all, ship to ship communication in the broad Atlantic will have no effect practically. Ship to ship communication in the narrow waters has been provided for; and one of the Regulations states that ship to ship communication must always cease when ship to shore communication commences. The ship to ship communication in the Channel, if such takes place, will be quite subservient to the ship to shore communication.

1911. Suppose one ship were communicating with another ship, as regards the Hertzian waves so used, would the communication be received at shore stations within a certain radius?—Certainly.

1912. Would not that interfere where countries were working in these shore stations?—If they were working simultaneously—yes; but the ship to ship stations must not interfere with the ship to shore communication; and therefore under the Regulations the ship to ship communication would have to cease until the ship to shore communication was completed.

1913. Do you agree with the terms of the Convention by which Great Britain does not adhere to the ship to ship communication, but stands out of that?—I quite agree with that limitation.

1914. You think the Convention is still very valuable, although ship to ship communication is allowed by a number of other countries?—Yes. I regard the Regulation as to ship to ship communication as a minor point which this country did not agree to, but which does not materially affect the benefit of the Convention as a whole.

1915. You have told us from several points of view that the essence of this system for its success is careful and uniform organisation between operators at ship stations and shore stations?—That is so.

1916. Do you consider that the Regulations attached to the Convention are adequate to secure that organisation?—I think so. They were most carefully considered by all the Delegates, who had a knowledge either of International telegraphy, of ordinary telegraphy, of radiotelegraphy, or of seamanship, and they were drawn up with the utmost care; in many respects they are more or less of the same character as the existing Marconi regulations, and I have no doubt that if properly administered they will be thoroughly effective.

Mr. Gwynn.

1917. If I may make the point here—I should like to ask you a question which arises out of the cross-examination. You have talked about co-operation; who are to be the co-operators?

Mr. Gwynn—continued.

There is the Marconi organisation in the field. What organisation do you suggest will work the French traffic, and what organisation will work the German traffic? Will it be on Government lines?—Each Government will have to establish some controlling body which will enforce the regulations in that country.

1918. And which will conduct the actual working?—That does not necessarily follow.

1919. That is to say, either the Government must create a service for itself which does not exist now, or some company must create a service which is not in existence now, I understand?—That may be, but the Government will have to take supreme control in the direction of enforcing the Regulations.

1920. At all events the administration which you say will be equivalent to that of the Marconi Company is an administration which has yet to be evolved?—Yes.

Mr. Arthur Lee.

1921. Do you think it will have to be subject to any extent to the Berne Bureau, or whatever it is called?—Certainly not, the Berne Bureau has no power of administration.

1922. I know it has not at present, but do you think that it will have to be developed to co-ordinate these various bodies?—No, the Berne Bureau will not have to do it. No country in the world is going to hand over its power of control to an International Service—a foreign body like the International Bureau. The International Bureau simply disseminates information. It is a body for the service of the various Governments, and it has no power to lift hand, foot, or finger in the shape of interfering with any of the Regulations, or in any way or shape with the administration of any country.

1923. I was not referring to the present state of it, but do you think it will not develop?—Certainly not.

Chairman.

1924. You said just now, in reply to Mr. Lee, that you looked upon the ship to ship communication as immaterial?—Yes, to a great extent.

1925. You also said just now that messages being sent from one ship to another would be landed probably, or heard at each shore station?—Yes, within range.

1926. Then you said there are Regulations which can prevent that undue interference?—Yes.

1927. Will you point out to the Committee how those Regulations could really be made effective so that the shore station could prevent interference on the part of two ships out in the Channel communicating with each other?—In every case the shore station controls the flow of traffic and regulates it. Now if we assume that a ship station interferes, the shore station would simply tell the operator at the ship station that was interfering—to stop until he had permission to go on. It is very much the same case as if you assume that three or four or half a dozen vessels come within reach of the shore station at the same moment; they all call at the shore station

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Chairman—continued.

—not altogether but in succession; the shore station under the Regulations will obtain from each ship certain particulars, and will tell each ship: I will take your traffic in such and such order. The shore station has absolute control. In the same way, if these two ship stations are talking the shore station can intervene and say: "Please stop your conversation" for any given period, and then it goes on with its work.

Mr. Arthur Lee.

1928. Which Regulation is that?—That is Regulation XL., page 115.

Chairman.

1929. But as ship to ship communication does not come into the Convention there is really no reason why the ship should comply, is there?—Yes, for this reason—that the ship will be licensed to carry wireless telegraph apparatus and that licence will necessarily compel her to obey all the regulations of the Convention.

1930. To avoid all interference?—Quite so.

Mr. Sydney Buxton.

1931. Is it not a fact that the ship to ship stations are absolutely governed by the Convention—the article for the regulation of call from ship to shore?—Exactly.

Sir Edward Sassoon.

1932. I should like to ask what is the position of those Powers we have heard about who voluntarily refuse to accept the reservation of compulsory intercommunication between ship and ship—America, for instance, voluntarily surrendered the right given to Great Britain of refusing to intercommunicate between ship and ship?—In other words America agrees to intercommunicate.

1933. It accepts the obligation?—Quite so; and England refuses.

1934. What would be the position of America in the event of her desiring to communicate with a British ship?—It would depend entirely on the good will of the ship master.

1935. That is to say, he can refuse to accept the communication?—He can refuse to accept the communication or he can accept the communication. In other words he would be just in the same position as the respective vessels would be in the case of flag signalling. An English vessel can refuse to receive a flag signal from any other vessel, but as a matter of ordinary courtesy it would not do so. Probably the English vessel as a matter of ordinary courtesy in the Atlantic would receive a message from a foreign vessel, but there is no compulsion.

1936. It is entirely optional. You have just said that the entire control of accepting or rejecting communications from ships rested with the shore station?—Not "accepting or rejecting"—regulating.

1937. Regulating the communication between ship and ship?—Pardon me, I misunderstood. Clause XL. says: "Traffic exchanged between the ship stations indicated in Article I. of the Convention must be so regulated as not to interfere

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Sir Edward Sassoon—continued.

with the service of coast stations, the latter being entitled as a general rule to priority for purposes of public correspondence." That is the one.

1938. So that a coast station could intercept messages transmitted from one ship to another ship if those ships happened to be within range of the coast station?—Perhaps I had better say, Sir, it could read its message; "intercept" rather assumes that you stop them.

1939. She could read it or not, as she liked?—Precisely.

1940. And would this grave inconvenience result that two of our battleships within range of a foreign coast station might have their messages intercepted, or "read"?—If they used the ordinary commercial wave length, no doubt their messages could be read; but I take it that our battleships would use a wave length other than the commercial wave length, and probably their messages would not be read.

1941. What other precaution would it be necessary for them to adopt in order to prevent this sort of thing happening, besides the wave length?—I take it, Sir, if it were a matter of very great importance they would use a code.

1942. What is the percentage of chances of the interception of the messages assuming that the Code could be deciphered? Suppose a foreign coast station were able to decipher the British Code, what chances are there of the message being able to be received, apart from the question of the coast?—It would depend very much on the conditions. I think if a station were established (we will say a naval station or any station), and it was specially designed and fitted with apparatus of such a character that they could measure the wave lengths and adjust their apparatus to any wave length, I am very much afraid there would be no means of preventing that station, if it were manned with highly skilled people, from receiving any message which was being transmitted.

1943. Exactly, so that from the point of view of British naval defence you think it would be advisable to have the service as it is organised at present in order to prevent this serious inconvenience arising?—I do not see, Sir, that the present organisation would either mend matters or impair them. The argument would apply to British stations, and of course British stations in the event of trouble would be placed entirely under the control of the Admiralty, so that there would be no danger of any important information leaking out through the intervention or the reading of messages by British stations; but it must not be forgotten that every other country in Europe either has or would have wireless stations. Nothing that the present organisation could do—or I am afraid nothing, so far as I know, that the Admiralty could do—would prevent messages being read by foreign stations under the conditions that I have specially quoted, or referred to.

1944. Even if things were allowed to remain *in statu quo*?—The present state of things does not affect the question at all.

1945. In answer to Mr. Gwynn you said you were quite certain in your mind that the effect of the non-adhesion of England to the Convention would be that all the other great Powers

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would

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Mr. GAVEY, C.B.

[Continued.]

Sir Edward Sassoon—continued.

would adhere and that the result would be a very considerable commercial loss to Great Britain?—I have no doubt of that.

1946. Then how do you explain the fact that the Marconi Company (who, I suppose, are very wide-awake to their own interests) have taken so hostile an attitude to the provisions of this Convention?—I am afraid, Sir, you ought to ask that question of the Marconi Company.

1947. You cannot throw any light upon it?—I have my impressions, but I do not think I ought to give “impressions” in evidence.

1948. You seem to have no apprehension in your mind as to the efficacy of the regulations as stipulated for in the Convention?—I have no doubt of the fact that they will be effective.

1949. And you think that their enforcement would be comparatively smooth?—I think there would be no difficulty in enforcing them.

Mr. Arthur Lee.

1950. You have given us a good deal of evidence about the effect of interference, which is a highly technical matter, do I understand that you are going to give us that altered demonstration at the Post Office?—I am entirely in the hands of the Committee; I shall be prepared to do it at any time.

1951. I want to ask you whether you could arrange for an illustration in the course of that demonstration of interference by the use of a third instrument?—Yes.

1952. I am rather asking you now so that you may consider it?—Certainly; there will be no difficulty.

1953. Then you will give us an illustration of wave lengths?—Yes.

1954. I presume that it would be included in that particular point, would it not?—Yes, just so.

1955. We have heard in the evidence from the Marconi Company that France by setting up stations on her coast would practically be enabled to interfere with the general traffic passing through the Channel, because it passes so much closer to the English coast. Do you agree with that?—If the Convention is ratified, France will not interfere—she must not interfere under the terms of the Convention. If Great Britain does not ratify the Convention, I am afraid they will endeavour to establish communication between the French liners skirting the English coast and French stations. They will be debarred from communicating on the Marconi system. They must inevitably interfere with communications at our British stations owing to their use of the high power necessary to communicate. For instance, when the vessel comes up to the Fastnet, if the Convention be ratified, she will communicate with Brow Head; if it be not ratified she will endeavour to communicate with Ushant; and it will be obvious that she must carry very much more energy—higher power—to enable her to communicate with Ushant instead of Brow Head than would be necessary if the present condition of things remains, and our British stations accept all the traffic.

Chairman.

1956. Assuming that France ratifies and that

Chairman—continued.

we do not ratify, will there be any obligation on France to avoid interference with Great Britain?—None whatever.

1957. None whatever?—None whatever. That obligation is only imposed by the Convention.

1958. Imposed on those who go into the Convention?—That is all.

1959. They can interfere as much as they like with those who are outside the Convention?—Absolutely.

Mr. Arthur Lee.

1960. Assume that situation—that England has not ratified, and that other countries have, would there not be the risk that the French ship by using that additional amount of power would really interfere with stations of countries that had ratified, say Holland?—It depends entirely on the geographical position of the ship; but if you look at it from the practical commercial point of view, as vessels approach our coast they endeavour to despatch their messages to the nearest station, and it may be said that the order of importance of the wireless stations along our coast is from westward to eastward; in other words the more important stations are those to the west, and incoming ships make direct for those points. In order of importance they would be Brow Head and The Lizard; then going on in a diminishing quantity until you reach Dover. Under those conditions liners would not use their apparatus very largely in the Straits of Dover, but they would use it very extensively at the Fastnet and off The Lizard, so that those are the points where the most interference with British stations would take place.

1961. You do not think it would be practically possible in view of the relations that exist between France and England, for example, that we should be able to make an agreement with France which would have the same practical effect as far as our two countries are concerned, as adherence to the Convention?—I doubt it very much; but there would be, as I have said, the practical difficulty that the French vessels would have to be fitted with powerful apparatus to enable them to communicate with the French coasts; and, private agreement or no private agreement, a difficulty would arise; they jam the stations at Brow Head and at The Lizard in communicating with the French coasts.

1962. Surely if such a private agreement were arrived at, the *status quo* would be maintained so far as England and France are concerned?—Except that, as I have pointed out, they would have to use high power to work across the Channel—the French vessels would have to use high power.

1963. Why should the French vessels in that case not be content to use English stations?—The point is that there would be no intercommunication. The Marconi Company would refuse to accept communications from the French apparatus.

Sir Edward Sassoon.

1964. Mr. Lee asked you if the French accepted the Marconi system as regards intercommunication with England, what would be the

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[Continued.]

Sir Edward Sassoon—continued.

the position of France as regards the other Powers?—If France ratifies the Convention—

Mr. Arthur Lee.

1965. Assume that neither France nor England ratify, but make a private arrangement with each other?—Oh, I see.

1966. That was really the point of my question?—That is problematical; I do not think it at all likely to happen; I do not think there is the slightest doubt whatever about France accepting the Convention. There is no doubt she will ratify it.

1967. I did not mean to ask you what would happen diplomatically, but what within your knowledge would be the practical results?—As to the mere possibility of two neighbouring countries undertaking to work one system under one control, of course there is no doubt about that.

1968. What would be the position of France with the adhering Powers?—If she refused to ratify?

1968*. If she ratifies and has this special agreement with England?—I do not think she can ratify and come into a special agreement with England.

1969. I suggest, in view of the geographical relation of the two countries, which makes most of the important traffic pass between them, it would be possible for them to make such an arrangement as would work?—Then that would introduce difficulties in the way of the French Government; that is to say, they could not obtain intercommunication with stations of other countries that had ratified.

Mr. Gwynn.

1970. They could use the Marconi system, could they not?—Yes, where the Marconi system exists, but it would cut them off from every other station in the world.

Sir Gilbert Parker.

1971. Do you think that if France stood out of the Convention the other countries would ratify?—I certainly do.

1972. I mean France and Great Britain. If France and Great Britain stood out of the Convention, would other countries ratify?—I am expressing my opinion, but it is an opinion that has been formed after close intercourse with delegates of all other nations for a period of six weeks in Berlin—I have no doubt whatever that the other nations will ratify whatever this country does.

Mr. Lambert.

1973. I think you said just now you were morally certain France would join the Convention whether Great Britain did or not?—That is my strong feeling. I feel that very strongly.

1974. So there could be no question about France not joining the Convention?—I do not think the question would arise for a moment.

1974*. The system, I take it, would be workable for mid-Channel work?—In the narrow waters only; but if France and England had vessels fitted with Marconi apparatus they could only

Mr. Lambert—continued.

communicate with Marconi stations, and would be cut off from communication with the coast stations of all the other countries that had ratified the Convention.

Mr. Arthur Lee.

1975. The other countries would correspondingly be cut off presumably from communication with English and French stations?—That may be, but it would be the passengers, largely composed of Englishmen on board those vessels, who would be the sufferers and not the other countries.

1976. Does not that rather point to the fact that in all these questions commercial convenience would really probably outweigh anything like Governmental action or national resentment in the event of England not ratifying?—I am afraid I do not quite follow the gist of your question, Sir.

1977. I will put it in this way: At the present time, owing to geographical considerations, it is more convenient to German vessels, French vessels, Dutch vessels, Russian and Scandinavian and other countries' vessels to communicate through British stations?—That is so.

1978. It is not at any rate possible that, owing to the geographical position—the advantage that we possess—even if there might be great resentment in foreign countries on our refusing to ratify, the big commercial interests concerned would feel after all that they could not afford to boycott England and that it would be advisable to go on communicating with English stations?—It seems to me, Sir, they would be debarred from communicating from the very fact that they had joined the Convention. Each country would have to license its ship stations. It must be borne in mind that all these ships will have to carry licences to intercommunicate, and that very fact would bar them from communicating with English coast stations, and they would say: Well, traffic may suffer a little, but that is a minor question; and as England has declined to ratify the Convention let England suffer the consequences, which would be the loss of traffic.

1978*. Could you state very briefly what would be the objection to England, whilst not refusing to ratify the Convention, stating that she wished to reserve her decision for a period of years, in the same way that Italy is doing—not for the same reason, but in a similar manner?—I am afraid Sir, the effect would be equivalent to a refusal to ratify, with the dangers that have been foreseen; the dangers of interruption and trouble and so on would arise forthwith.

Mr. Gwynn.

1979. Could they arise "forthwith," because the competing organisation would not yet exist, as you pointed out in an answer to me?—When I say "forthwith" I mean as soon as the competing organisations had been established; and what I personally as one of the Delegates feel very strongly is this: the English Delegates went to the Convention with certain definite instructions, and they were able to induce the Delegates of other nationalities to fall in with their views they carried every one of those instructions,

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[Continued.]

Mr. Gwynn—continued.

instructions, and in other minor points they modified both the Convention and the Regulations to a very great extent in matters of detail with a view of improving this country's position—making the Regulations more stringent and, generally speaking, making the Convention more workable. Now if England declines to ratify or postpones the ratification so as practically to prevent the Convention coming into force, she will have to come as a suppliant by-and-bye instead of remaining one of the nations that regulates the Convention, and in the meantime it is quite possible that those Regulations and those Clauses that favour this country may be reversed and revised to the injury of this country. I think it will be absolutely fatal. No other country would refuse ratification or would defer ratification.

1980. You have said in the course of your answer that any delay on the part of England ratifying would practically prevent the Convention from coming into force?—I am afraid if I said that it was not what I intended to say.

1981. I thought not?—Anything that prevented the Convention being adopted by this country would not prevent the Convention coming into force amongst other countries, but the position of this country would be very gravely prejudiced in any matters relating to radiotelegraphy.

1982. What would happen in the interval that must intervene, assuming that Great Britain definitely stood out and would not ratify and other nations would not resist ratification; what do you suppose would happen in the interval before another service of wireless telegraphy could be organised?—I take it that those nations that have decided to ratify are already preparing the necessary organisation for working under the Convention.

1983. Is that an assumption, or do you say that of knowledge?—I say it is an assumption based on reasonable grounds. If it had not been for this Inquiry the British Government would at the present time be organising. The matter has been delayed owing to this Inquiry. Every country has to establish some organisation to control radiotelegraphy, and I have no doubt, as I say, that other countries are doing so; at all events, whether they are or not, they must be prepared to enforce the terms of the Convention in July, 1908; and at that time, if the British Government has refused to ratify, the other Governments would be in a position to take any action that they might think necessary in their own interests.

Mr. Lambert.

1984. May I take it that every one of the objections to the Convention of the British Delegates was fully met by the Conference?—Absolutely so.

1985. And that in your opinion Great Britain would ultimately have to join a Wireless Telegraphy Convention?—I have no doubt of it.

1986. And that she would be infinitely prejudiced were she not to ratify this Convention at the present time?—Unquestionably.

1987. Do you know of any strong objection to the ratification of this Convention other than that

Mr. Lambert—continued.

presented by the Marconi Company?—I know of no objection to the ratification by this country.

1988. Except that of the Marconi Company?—Except that of the Marconi Company.

1989. It has been suggested here that the Post Office Delegates were too strong for the Admiralty Delegates?—Will you kindly explain what "wireless" influence you exercised over the Admiralty Delegates?—Well, Sir, I feel that a remark of that kind is childish. The Admiralty Delegates were strong, able men and I consider it is an insult to them to say that they were swayed by their colleagues to the detriment of their duty.

1990. May I ask you whether the Delegates were unanimous or not?—We were absolutely unanimous from beginning to end. We went out with definite instructions from the Government; there was never a note of divergence between any of the Delegates on any point of principle, and in our daily conferences we simply conferred in the most amicable manner as to the best method of carrying out our instructions.

1991. Then if any suggestion were made that there was a difference of opinion between the Delegates it would be false?—Absolutely so.

1992. Now you, of course, are more or less of an expert on wireless telegraphy. May I ask you, as you have left the Post Office now, whether you see anything in this Convention to which you, as a patriotic Briton, would object?—Not the slightest, Sir. I think that the national interests are not only fully protected by the Convention, but that they are more fully protected with the Convention than they would be without it.

1993. Therefore you say that it is a distinct national advantage for this Convention to be ratified?—To the best of my knowledge and belief, certainly so.

1994. And you speak as a "wireless" expert?—I speak as a "wireless" expert.

Mr. Sydney Buxton.

1995. Mr. Cuthbert Hall, in his evidence, laid great stress on the organisation of the Marconi Company, and he mentioned that there were something like 53 ships on which there was the Marconi system installed;—I see from a list that we have they number 33, but he said 53:—I understood you in reply to Mr. Adkins' question to say that in your view if the Convention is ratified and the Marconi Company agree to accept intercommunication the bulk of these ship stations would probably continue?—I see no reason why they should not; I have a strong impression that probably they would.

1996. But, on the other hand, if we stand out, or if the Marconi Company refuses intercommunication, these various nations who ratify would be bound to remove the Marconi apparatus from those ships?—I believe they would.

1997. The list he gave us of ships showed that there were 39 in the United Kingdom, and 53 outside, of which 10 are Italian and 43 not Italian. As regards the 39 English ships, if we refuse to ratify they probably may retain the Marconi system?—Probably.

1998. But there remain 53 out of the whole total. I am giving Mr. Cuthbert Hall's figures (they

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Mr. Sydney Buxton—continued.

(they do not correspond with the pamphlet we had put in evidence)—14 German, six French, nine Dutch, 10 Belgium, and four United States, 43 in all; and under the Convention I understand you to say the German Government, the French Government, the Dutch Government, the United States, and so on, who ratify the Convention, will be bound to only issue licences to intercommunication stations?—That is so.

1999. Therefore these 43 ships will have to remove their Marconi apparatus?—Unless they come into line with the Convention.

2000. Assume for the moment that we do not ratify?—If the Marconi Company agreed to intercommunicate they might be retained, but only under those conditions.

2001. That is what I am asking?—Yes.

2002. In that case the Marconi organisation will have received a severe blow?—Unquestionably.

2003. There will be 39 ships (giving its own figures) remaining for it and 43 against it?—That is so.

2004. And would this further happen, if the Convention was ratified by the United States, as a party to that ratification, that the ships may be able (as Mr. Lee pointed out) to communicate with the Channel, the 39 remaining Marconi, but if they crossed the Atlantic and got to America (if they are Atlantic liners, as most of them are) would they be able to communicate on that side?—Not with the United States stations; if they got within reach of Canadian stations they might.

2005. The American stations you mean would be bound under the Convention to refuse to communicate except under the intercommunicating principle?—That is so.

2006. Therefore in your view, from what you have said, the result of non-ratification of the Convention by Great Britain, or the refusal of the Marconi system to intercommunicate, would be practically to destroy the system, or so much of it as remained?—Yes, very largely.

Mr. Arthur Lee.

2007. Is it not a fact that the Atlantic liners communicate in the first instance on the other side with a Canadian station?—They do.

2008. Therefore it would not really prevent communication between ship and shore because the messages could pass along the land line?—I guarded my reply by saying they could probably communicate with Canada, but not with the United States.

2009. Communication could be effected with the United States in that way?—Exactly.

Mr. Sydney Buxton.

2010. That is in the case of the 39 on which the Marconi apparatus is left?—That is so.

Mr. Adkins.

2011. That is, the messages would be passed on by the land lines?—Yes, they do that now.

Mr. Sydney Buxton.

2012. Mr. Cuthbert Hall alleged that intercommunication led to confusion (I gathered him to say), because of the operators belonging to

Mr. Sydney Buxton—continued.

different organisations that there would be rivalry, and secondly, because the Regulations of the Convention would be inadequate to control such rivalry. I think I am doing him no injustice in putting it in that way?—In the first place the Regulations for working authorised by the Convention do not differ very materially from those authorised by the Marconi Company, so that so far as the mere Regulations themselves are concerned there is no reason why confusion should arise under the new conditions more than under the old. It is really a question of the power of enforcing these Regulations; and the penalties will be really very stringent, because they will go so far as the removal of the licence of the operator or of the ship itself, and it is hardly conceivable that they are likely to incur such penalties or to run the risk of incurring such penalties; so I certainly think that the power to enforce the Regulations will be ample.

2013. Then another point he endeavoured to make, as I understood him, was that it would be difficult to get redress owing to the roundabout course taken to enforce the penalties, and so on?—I think the answer to that, Sir, is that after all the majority of the vessels will belong to four or five or half-a-dozen of the Great Powers and the proceedings will not be roundabout; direct communication takes place with them every day. I think we may say, Sir, that we have an equivalent of that in our International Telegraphic Service now; the opposite ends of the land wires are manned by people of different nationalities, the men sometimes fall out, but there is no difficulty in maintaining discipline and in maintaining the communication.

Mr. Gwynn.

2014. Would you say that that was a fair parallel in the matter of the difficulty of enforcing control?—I think so.

2015. That the control of a single wire or a single system of wires is not much easier than the control of ethereal intercommunication?—It is an analogy certainly, and it points to the fact that if difficulties arise—if dissensions arise between operators—there is absolutely no difficulty in enforcing the penalties and in establishing a right method of communication; and I see no reason why any greater difficulty should arise in "wireless."

2016. Can they jam the lines?—Certainly.

2017. In cable telegraphy?—Certainly.

2018. Does the case ever arise?—No, because the penalties are sufficient to prevent it arising.

2019. The case cannot arise, I gather, in the matter of telegraph lines without deliberate intention, whereas the difficulty in the other case is to avoid jamming—is not that so?—No, I think unless the operators are unskilled or the apparatus is bad, jamming must arise through deliberate intention—in "wireless," that is, I am talking of—

2020. And confusion of messages?—As regards the confusion of messages—assuming the operators are skilled and the apparatus is in good order, there ought to be no confusion of messages except by deliberate intent.

2021. You say that it is just as easily controlled as a wire?—Yes.

2022. A

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[Continued.]

Mr. Sydney Buxton.

2022. A considerable point was made by the witness for the Marconi Company on the ground that they had a large number of stations carrying on a considerable amount of commercial work and that other stations were not carrying on much work. Have you any information on that that you could give us—that they have an organised wireless telegraphy system at other commercial stations?—Well, on that point, Sir, I would refer rather to what I said in connection with the American service. In the United States they do appear to have an organised wireless service, but generally speaking, in view of the fact that there are 63 Marconi commercial stations as against 123 commercial stations on other systems throughout the world, I can hardly believe that these 123 stations have been established for the purposes of philanthropy; they must have been established for commercial work, and in each country which possesses those stations there must be some organisation for the collection and despatch of telegrams. I have given evidence in relation to the United States; I cannot give evidence in relation to other countries.

Mr. Gwynn

2023. Were those 123 stations established solely for commercial purposes?—I will not say

Mr. Gwynn—continued.

“solely,” but they are stations that are open to commercial work.

2024. It was represented to us that in the United States there were 30, all of which were registered as being open to commercial work?—Yes.

2025. So that your figures would be subject to that interpretation?—My figures would be subject to that interpretation unquestionably.

Mr. Sydney Buxton.

2026. As regards the Marconi stations themselves, are you aware whether at some, or at any of them, the whole of the work done is large or not?—From January to December 1905 the total messages at all the Marconi stations in Great Britain amounted to the following: Messages to ships 541, messages from ships 10,297; from January to December 1906 there were 1,036 messages to ships, and 14,984 messages from ships.

2027. At some of our stations, like Niton and the North Foreland, is there much traffic already?—No, very little indeed. In 1905 the number of messages per month at the North Foreland, for instance, was to ships one; from ships 25; in 1906, to ships three; from ships 45.

Captain E. F. INGLEDEN, R.N., called in; and Examined.

Chairman.

2028. You are an officer of the Royal Navy?—Yes.

2029. And Secretary of Lloyd's?—Yes; I succeeded the late Colonel Sir Henry Hozier, K.C.B., as secretary of Lloyd's on the 1st October 1906.

2029.* Have you had much experience of wireless telegraphy?—I have recently been in command of a large armoured cruiser which was equipped with wireless apparatus; and since I have been at Lloyd's I have devoted considerable attention to the question of wireless telegraphy in relation to commercial maritime signalling.

2030. Can you tell the Committee how Lloyd's is interested in commercial maritime signalling?—One of the principal functions performed by the Corporation of Lloyd's, as defined by Lloyd's Act of Incorporation of 1871, is the collection of maritime intelligence from all parts of the globe, and the publication and diffusion of that intelligence in the United Kingdom and abroad among those who are interested in shipping matters and in oversea trade. By “Maritime Intelligence” is meant any information affecting shipping, cargoes and freight.

2031. How is this maritime intelligence collected?—In order to carry out the large business involved in the world-wide collection and distribution of such intelligence, it is necessary to have a carefully arranged system of signal stations in the vicinity of the principal trade routes, as well as at the most important ports at home and abroad, besides specially appointed

Chairman—continued.

agents at every port in the world. Lloyd's has also some 1,300 agents and sub-agents, who, in addition to the important duties which they perform as the representatives of the Corporation, are specially charged to transmit at once all the latest maritime intelligence from their respective districts.

2032. What are the signal stations to which you refer?—I submit a list of signal stations showing those stations which belong to Lloyd's and also those stations where Lloyd's has made arrangements to receive reports in all parts of the world, but the most important stations are those situated round the coast of the United Kingdom, which is, owing to its geographical situation and the predominant part which it plays in the business of the world, the principal focus of ocean commerce.

2033. How do the signal stations communicate with passing vessels?—The communication between merchant ships and Lloyd's signal stations is generally effected by visual signalling—in the day time with flags, and at night time by pyrotechnic lights or flashing lamps. Visual signalling has hitherto practically fulfilled all Lloyd's requirements, as up to the present time very few merchant vessels have been equipped with wireless apparatus; but ever since the inception of wireless telegraphy the Committee of Lloyd's have had before them the fact that possibly in the near future this means of communication might be largely used for maritime signalling. They have, therefore, closely

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Captain INGLEFIELD, R.N.

[Continued.]

Chairman—continued.

closely watched the development of the Marconi system, and have conducted experiments with other systems at a cost to themselves up to September 1901 of about £4,500.

2034. Has Lloyd's entered into any agreement with the Marconi Company?—In September 1901 an Agreement was concluded with the Marconi International Marine Communication Company (an offshoot of the Marconi Wireless Telegraph Company); but this Agreement was varied in certain respects by the "Terms of Settlement" arrived at between the parties in November 1905.

2035. Can you hand in these documents?—Here are copies of the Agreement, but I am not at liberty to disclose the terms of settlement without permission of the Marconi Company.

2036. Which of Lloyd's signal stations have been equipped with wireless apparatus?—The following Lloyd's signal stations have been equipped with Marconi apparatus under this Agreement:—Inishtrahull was equipped in April 1902; Malin Head in April 1902; Brow Head in December 1902; Fastnet in February 1904; Port Said in March 1905; Port Tewfik (that is Suez) in March 1905; the Butt of Lewis in April 1907; the Flannan Islands in 1907, and Tory Island and Dunnet Head are about to be equipped; but the Brow Head station was equipped by the Marconi Company for their own purposes under special arrangement.

2037. Has your agreement with the Marconi Company worked smoothly?—Unfortunately, within two years of the conclusion of the Agreement differences arose between Lloyd's and the Marconi Companies. Litigation took place as to certain matters, and, as some of these are still *sub judice*, it would hardly be proper for me to discuss them before the Committee, though I may say that I believe the points at issue have no direct bearing on the question before the Committee.

2038. When concluding that agreement, was Lloyd's in favour of a wireless monopoly?—Referring to the Agreement, it will be noticed in the preamble that it is stated: "Lloyd's is of opinion that it is desirable that one system of wireless telegraphy should be in general use," and that "the Marconi system is in such general use." At that time the Marconi system was the principal system before the public. It had been advanced further in practical development (at any rate in the United Kingdom) than any other system, and the Marconi Companies alone had stations in actual working in the United Kingdom for commercial maritime signalling. For these reasons Lloyd's considered it advisable to adopt the Marconi system in preference to those with which it had been experimenting, and the agreement was therefore concluded. As matters then stood in reference to wireless telegraphy, it appeared to the Committee of Lloyd's desirable, in order to avoid complications, that one system rather than a multiplicity of systems should be used for commercial maritime signalling (in which alone Lloyd's is concerned), and no other system than the Marconi system could be said to be in general use in the United Kingdom. The statements in the preamble appear to have been

Chairman—continued.

made on the assumption (which was perhaps even then erroneous) that intercommunication might not be possible between various systems of wireless telegraphy, or at all events might lead to great confusion; and they were not intended to imply that Lloyd's was then, and would always be, in favour of an absolute Marconi monopoly, and against any proper arrangement for intercommunication.

2039. Does the agreement debar Lloyd's from intercommunication?—The Agreement runs until 1915 (when the Marconi patents will expire), and by Clause 7 Lloyd's undertook not to use, or permit to be used, during that period "any system of wireless telegraphy other than the Marconi system at or in connection with any of Lloyd's Signal Stations" (except in certain specified countries to which the Agreement does not extend), the only important exception being the United States of America.

2040. Has Lloyd's adhered to that condition?—Since the conclusion of the 1901 Agreement, other systems of wireless telegraphy have been developed and utilised for ship to shore communication, but Lloyd's has rigidly adhered to its agreement with the Marconi Company, and has neither used any other system at its stations nor intentionally allowed messages from vessels equipped with other systems to be received at those stations. Lloyd's has not advocated intercommunication, and will continue to regard itself as debarred from permitting it at Lloyd's Signal Stations, unless and until its obligation to the Marconi Company is over-ridden or a contrary obligation is imposed, either by legislation or by the conditions of the licences which may be granted to Lloyd's by the Postmaster-General.

2041. Do you consider that the prohibition of intercommunication for commercial maritime signalling is detrimental to the public interest?—It is evident that, if vessels of the Mercantile Marine are equipped with systems of wireless telegraphy other than the Marconi system, and are debarred from communicating with Marconi-equipped vessels and Marconi-equipped stations, this would be detrimental to the public interest, and especially to the interests of the shipping and marine insurance communities who rely upon Lloyd's for their maritime intelligence. Lloyd's is, and for long has been, the great medium for the collection, distribution, and publication of all information relating to maritime matters. It was for this primary reason that Lloyd's long ago established and has since developed its now extensive organisation for the collection of such intelligence. This organisation is used for the advantage of the whole shipping and mercantile communities, and indeed for that of the public generally; and the various departments of our own and certain foreign Governments make direct or indirect use of it, and co-operate with Lloyd's in various ways towards rendering it efficient; consequently, it is of such great importance that all and any intelligence relating to maritime matters should be received at Lloyd's that the possibility of inter-communication between vessels and shore stations, irrespective of the system with which they are equipped, could not but be to the advantage of

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[Continued.]

Chairman—continued.

all interested in commerce, and particularly to owners of vessels, owners of cargoes and underwriters.

2042. Can you give an instance where the prohibition of intercommunication has been detrimental to the public interest?—As an instance where the general public interests have been endangered, and human life jeopardised owing to the refusal of the Marconi Company to allow inter-communication, I would quote the incident of the United States steamer "Lebanon" in June, 1906. This vessel was engaged by the United States Government to destroy a derelict said to be endangering all steamers crossing the North Atlantic. Whilst searching for the derelict, the "Lebanon" got into communication by wireless telegraphy with the Marconi-equipped Red Star Line steamer "Vaderland," in the hope of getting information, and, it is understood, received the following reply: "We cannot talk with you as we are under the Marconi contract." Thus the Marconi prohibition of inter-communication stood in the way of the performance of valuable services, and might have been attended with serious consequences.

2043. Has the Marconi Company's prohibition to intercommunicate affected Lloyd's in the United Kingdom?—The Marconi Company's reading of Clause 7 of the Lloyd's-Marconi Agreement has resulted in the closing of a Lloyd's signal station. Prior to September 1901, Lloyd's had a signal station on Rathlin Island. Reports from this station were transmitted to the mainland by the system of wireless telegraphy installed between Rathlin Island and the mainland by the Postmaster-General. The work of the Postmaster-General was done by Lloyd's signalmen, and when it was sought to place this arrangement on a more permanent footing by an agreement, we notified the Marconi Company as a matter of form. They claimed that it was a breach of Clause 7. They declined to waive their objection; after some time the Postmaster-General transferred the working of the system to the Post Office on the island, three miles from the signal station, in October, 1903, and Lloyd's signal station was closed in April, 1904. This is not actually a case of intercommunication, but I quote it to show the views expressed to Lloyd's by the Marconi Company with regard to the connection of Lloyd's with other systems of wireless telegraphy, even though that system be a Government system for public use.

2044. Has this prohibition affected Lloyd's abroad?—Abroad, this question of intercommunication has materially affected Lloyd's because we have recently applied to establish wireless telegraphy stations in various British Colonies. For instance, Jamaica, Ceylon, Barbados, St. Helena, Perim, Straits Settlements, Mauritius. We have not been able to obtain the requisite licences from the Colonial Governments, because they make it a condition of the licences that intercommunication shall be permitted at the licensed stations, and Lloyd's is precluded by its agreement with the Marconi Company from allowing such intercommunication, and from utilising any other system. Consequently, Lloyd's has been unable to equip signal stations in these colonies at all.

Chairman—continued.

2045. Supposing the Convention be not ratified, would this, in your opinion, act prejudicially to the collection of maritime intelligence for general use?—An important provision, from the point of view of Lloyd's, is that contained in Clause 39 of the Regulations of the Radiotelegraphic Convention, by which arrangements are to be facilitated "for communicating to maritime news agencies information respecting wrecks and shipping casualties or of general interest for purposes of navigation." Lloyd's has already arranged with foreign Governments for reports of casualties and other maritime intelligence from foreign wireless stations to be forwarded to Lloyd's, and we shall doubtless avail ourselves of the facilities accorded by this Clause 39. If, however, Great Britain declines to ratify the Radiotelegraphic Convention, it is feared that, by way of retaliation, foreign Governments will decline to supply Lloyd's with maritime intelligence from their wireless stations, and possibly may also cancel the privileges granted to Lloyd's at semaphore stations, which have already been found of great advantage by shipowners, consignees, charterers, and all interested in vessels or their cargoes.

2046. Are there any further points you desire to put in on behalf of Lloyd's?—Is it permitted me to refer to evidence that I have heard in this room, Sir.

2047. Yes?—I understood Mr. Cuthbert Hall on Tuesday, after alluding to the difficulties there were with Lloyd's, to make some remarks with regard to Lloyd's relations to the Admiralty. With regard to that matter, Sir, I think perhaps it would be better not to refer, as the difficulties with the Marconi Company have been, and are still, very complicated and they are—a great many of them—still *sub judice*; but there is one particular charge that I feel it is my duty to refer to and that is that Mr. Hall alluded to the inefficiency on the part of Lloyd's staff in the work of wireless telegraphy. In my judgment that seems to me to be an unnecessary slur on a very zealous and intelligent body of men. I have gone carefully into this matter and so far as I can see where mistakes were made in signalling steamers, there was nothing to fix the fault more on one side than on the other. I have my own opinion as to on which side the fault was, but I think the faults may have been, on the whole, pretty equally divided; but I wish to say that Lloyd's has spared neither trouble nor expense in maintaining an efficient staff at their signal stations. Maritime intelligence very largely depends on having efficient signal stations. The whole system would break down unless we had efficient signalmen. I think our staff that were working the wireless telegraphy at this place was a particularly strong one because it was composed of two elements; we had the element of our own signalmen, who are accustomed to convey messages to ships and also to receive them, and who are also accustomed to working telegraph instruments, it did not therefore require very much instruction to turn them into skilled wireless operators; but in addition to that we obtained (I imagine from the same source as that from which the Marconi Companies obtain their operators) skilled trained wireless telegraphists,

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Chairman—continued.

graphists, and these combined with our own men formed a very good working-conjunction, and my own view is that if they had received fair play from the Marconi Company the thing could have been worked very well; but I think the facts seem to show that the Marconi Company were anxious to discredit Lloyd's staff in order to get the working into their own hands, which they eventually did; and as an instance of that I might mention that when, after our agreement, we took over the working at some of these stations from the Marconi Company, the Marconi Company left absolutely nothing at the stations except the apparatus itself and the telegraph forms we use; all the documents and instructions for the guidance of their own operators at stations were locked up or taken away, so that it might be as difficult as possible for our men to work; and in a great many cases when they made complaints about the working of our men they would not state specific facts but merely made a general statement that our operators were unsatisfactory. I think it is unfortunate that the matter should have been brought up here because it has really nothing to do with the Radiotelegraphic Convention.

2048. You engaged and employed your own operators in your Marconi stations?—We did when we were working, and we do now at the stations at which we are now working.

2049. Have you the same system for training men that the Marconi Company have?—We obtain them ready trained. The South London Training School is where we obtained them from.

2050. Do you take great precautions to ensure that the men you employ are only men who have been thoroughly trained?—I am speaking now of what happened before my time, but I feel quite sure that all precautions were taken by my predecessor, as we are very jealous of the efficiency of Lloyd's signal stations. Naturally when there are mistakes in communication with vessels it fills Lloyd's with numbers of complaints from shipowners and others interested who may suffer loss from it; and it reflects very much on Lloyd's if things do not go well.

2051. But in recent times, since you have been at Lloyd's, you can, I understand, say that you have a strict practice in force to ensure efficient operators?—I have not engaged any wireless operators myself, because we have not established any new signal station lately; but I know it has been so in the past, and I am sure it will be so in the future for the credit of the Corporation. Immense trouble is taken, and I can say this much, that always at Lloyd's any mistake that is complained of by shipowners or others is immediately threshed out; we go to the very bottom of it, and take steps as best we can to prevent a recurrence of that which has given rise to the complaint.

Mr. Sydney Buxton.

2052. Your maritime intelligence, I take it, extends all over the globe-wireless?—All the "wireless"?

2053. I am speaking of your maritime intelligence?—Maritime intelligence we receive from all parts of the globe.

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Mr. Sydney Buxton—continued.

2054. I gather from what you have said that it is very important for you that no difficulties should be placed in your way in obtaining information by any wireless system?—That is so, Sir.

2055. And I gather from what you have said that the result of your agreement with the Marconi Company has been detrimental to your operations?—It has been detrimental up to the present in so far as it has prevented us from establishing signal stations in certain of the Colonies to which we have applied.

2056. Is that on the ground that the Colonial Governments will not grant licences except for a system which will intercommunicate?—That is so.

2057. And under your agreement with the Marconi Company you are bound to have all your stations non-intercommunicating?—Yes.

2058. Let me put this to you as a general proposition: If you were making a similar contract now, do you think you would probably make that contract with such a clause in it?—In view of the development of other systems which has taken place since 1901 I am quite sure we should not dream of making such a contract.

2059. You would not enter into an agreement of such an inclusive kind as that?—Certainly not, Sir.

2060. I gather from your evidence that the reason that that particular contract was made in 1901 was that at that time the Marconi system was the only one that was being worked on a commercial basis?—That is so.

2061. Therefore you thought you had better take advantage of the existing system?—Yes; it seemed so far ahead of the others from a practical point of view that it appeared to us that we should stick to that one.

2062. You are aware that under Clause 10 of the Postmaster-General's agreement with the Marconi Company, assuming that the Convention is signed, and that the British Government adhere to it, you will obtain relief from your agreement with the Marconi Company?—Yes, I am aware of that.

2063. That clause was not proposed at the instigation of Lloyd's, was it?—No, Lloyd's knew nothing about it until some time afterwards, I understand.

2064. I mean it was not an attempt on your part to get out of your agreement with them?—Not at all.

2065. It was done by a public office on public grounds?—It was introduced on public grounds, I understand.

2066. In regard to Clause 39 of the Regulations of the Convention, to which you have referred, was that clause put in by the desire and at the instigation of Lloyd's?—I was Secretary of Lloyd's at that time, but it was put in entirely without my knowledge; it was some weeks after the close of the Berlin Conference before I heard of it.

2067. You are not aware that it was by the desire of Lloyd's that it was brought about by the British Delegates?—No.

2068. At all events it was a clause which Lloyd's desired, and which was advantageous to them?—

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Mr. Sydney Buxton—continued.

them?—It was advantageous and practically necessary to Lloyd's. It might be absolutely necessary to Lloyd's in the future if wireless telegraphy is adopted very largely by merchant vessels.

2069. What I understood you to say just now was that it was before your time, and that you had no knowledge of it?—The first one—the Post Office wireless telegraphy agreement was before my time.

2070. I am speaking of Clause 39 of the Regulations of the Radiotelegraphic Convention?—I became Secretary of Lloyd's on the 1st October; it was just at the time when the Conference was meeting in Berlin, and it was not until some weeks afterwards—after the Conference had terminated its sittings—that I heard of this paragraph at all.

2071. You are not aware that the Chairman of Lloyd's Committee came to see the Postmaster-General in order to have this clause inserted. You are not aware of that?—Yes, I now remember that.

2072. If the Convention therefore is not ratified this clause drops. What you say is: "By way of retaliation foreign Governments will decline to supply Lloyd's with maritime intelligence from their wireless stations, and possibly may also cancel the privileges granted to Lloyd's at semaphore stations." Would that be a serious matter for you?—Yes, that would be a very serious point for us, because at the present time the foreign Governments have been very good in agreeing to our suggestions to give us information of casualties, and so on, that they may receive from their wireless stations; and we also receive from semaphore stations at various points on the coasts of Europe reports of ships passing, casualties, and so forth.

2073. I take it from what you have said that you would be generally in favour of the Convention because it would be to the interest of Lloyd's, who represent the Mercantile Marine?—Not only the Mercantile Marine, but I would point out that the whole commercial community benefit by the system of intelligence of Lloyd's; the shipowners and owners of cargoes also derive great benefit from the intelligence, so that they can make their own arrangements both as regards insurances and the disposal of their ships and other arrangements.

2074. Are you of opinion that without a convention Lloyd's would continually be hampered as they have been in the past?—That is so.

Mr. Lambert.

2075. Do I understand that Lloyd's, as a body, is in favour of the ratification of this Convention?—The Committee of Lloyd's, which governs the affairs of the society, are certainly in favour of it.

2076. I mean there can be no doubt about that?—No possible doubt at all.

2077. I assume that Lloyd's has an interest in promoting the welfare and the maritime interests of Great Britain?—Very much so, yes.

Mr. Lambert—continued.

2078. And therefore, in wishing for the ratification of this Convention, it presumably hopes that the maritime interests of Great Britain will be advantaged?—We believe that.

2079. Are you in favour of the present monopoly of the Marconi Company?—Not so far as it is incompatible with intercommunication.

Mr. Gwynn.

2080. If I may just raise the question here, is not your difficulty that the Marconi Company at present have not got a monopoly?—Is not our difficulty?

2081. That at the present time the Marconi Company have not got a monopoly?—Yes, that would be another way of putting it.

2082. That is to say, there are competing systems in the field?—Yes.

Mr. Lambert.

2083. Where ships are fitted with Marconi apparatus no intercommunication is permitted?—I believe generally not.

2084. Except in minor instances?—Except in minor instances, yes.

2085. Is there anything in this Convention that is hostile to the interests of Britain as a whole?—Do you mean the commercial interests?

2086. The commercial interests of Great Britain?—I should say not—there is nothing hostile to the commercial interests of Great Britain so far as I am able to judge.

2087. Do you think on the whole that it would be advantageous for this Convention to be ratified?—I think so.

Mr. Adkins.

2088. I think you said in answer to Mr. Buxton, that if the Convention were ratified by England a certain clause in the agreement between the Post Office and the Marconi Company would then operate by which you would be freed from your present restriction as to intercommunication?—I imagine that it would not come automatically into operation, but I think the Post Office would be free to do it.

2089. I have got the section here. According to that, the Company undertake to relieve the Admiralty and Lloyd's without prejudice to their patent rights?—Yes, if required by the Government so to do.

2090. If required by the Government so to do. Is that view accepted by the Marconi Company themselves?—I am not able to answer that.

2091. I did not know whether it had been a matter of discussion between you and the Marconi Company?—No.

Mr. Gwynn.

2092. Why are there the stations at Inishtrahull and Malin Head?—Because Inishtrahull is an island lying off, and we have a signal station there for signalling ships passing by flags—visual signalling—and they would communicate with the shore—Malin Head; it is a difficult place to lay a cable; it is easier and simpler for us to send off a telegram to shipowners by wireless

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wireless communication between Inishtrahull and Malin Head than to lay a cable.

2093. Inishtrahull is a small station for local use?—Inishtrahull is practically that.

2094. And they are within a few miles of each other?—They are within a few miles of each other—yes.

2095. Mr. Buxton suggested that your arrangement with the Marconi Company had been detrimental to you, and you said that if the thing were to do again, in your opinion you would not make a contract with the Marconi Company while it maintained its existing reservation?—Yes.

2096. If you did not make a contract with the Marconi Company, and you wanted to make one at the present time, with whom would you make the contract?—I do not know that we should make a contract with anybody. I think it would require a great deal of consideration as to what we should do at the present moment. I do not say that we should make a contract at all; it would depend upon the whole circumstances of the case.

2097. That is to say, there are no bodies alternative to the Marconi Company with whom you could contract?—Not that I know of.

2098. There is no commercial system existing on a sufficiently large scale?—There are other systems in use; there are other systems in practical use.

2099. But *organisations*?—No, I suppose not—certainly not round the coasts of England.

2100. You might contemplate having your own organisation?—Of course if there was no intercommunication it is possible we should have to fall back on the Marconi Company; it depends so much on the circumstances of the case and the contract we might make.

2101. If I may put a question by way of analogy to illustrate to you what I mean: Could Lloyd's be internationally managed?—Internationally managed?

2102. Yes; could you conceive of the organisation that exists under the name of "Lloyd's" being managed by the different Governments of Europe?—No, because that idea does not appeal to me any more than if you suggested the managing of any other corporation internationally.

2103. I want to suggest that your business is the intercommunication and collection of maritime intelligence, which is not altogether unlike the management of a system of wireless telegraphy which is to cover the world. Your system has a real monopoly, and I put it to you: Is not the existence of that monopoly partly due to the advantage which accrues from a system of central control?—It is certainly necessary to have a system of central control of Lloyd's signal stations, but then there the analogy ceases I consider, because Lloyd's signal stations can never clash with each other. In the question of visual signaling, there can never be any question of clashing; and no international management of that sort is necessary. We make our arrangements with foreign Governments and Colonies as we find necessary for our signalling communications, and we have those

Mr. Gwynn—continued.

all over the world. There is no question there of clashing with anybody.

2104. There is not the same necessity imposed upon you to attempt to organise the thing internationally?—No.

2105. That is to say, you would say that if the business of wireless telegraphy could be managed by a company or a central control, that would be the ideal system?—Certainly.

2106. You consider that the world is driven—because the air is common property—to manage this business by a sort of committee of Governments; is that your view?—My view is that some controlling organisation is necessary certainly, whether there is intercommunication or not.

2107. You say that international control is not in itself desirable, but is a necessary feature of the case?—International control appears to me to be desirable because English and foreign ships or signal stations may clash with each other; but that is quite a different case to Lloyd's signal stations, which cannot possibly clash with each other, because they are so far apart. I understand that you are still referring to the analogy between the organisation of Lloyd's and the organisation of wireless telegraphy. Is that not so?

2108. The analogy is between two bodies which deal with the communications of the whole world. You have managed it successfully by a central organisation in the case of Lloyd's, and the case of the Marconi Company, as I understand, is that the conduct and machinery of communication can only be done successfully by some central organisation?—To my mind the wide point of distinction is this, that the signal stations cannot clash with each other; and, further, that there is not the same organisation required, as it were, to make them work together; one signal station has nothing to do with another; a signal station in France works quite independently of a signal station in England; half a dozen ships can signal by flags at the same time to a Lloyd's signal station without interfering with each other; whereas of course in wireless telegraphy the case is quite different. One signal station on the French coast might clash with a signal station on the English coast; and, speaking generally, not more than one ship can communicate with the same signal station at the same time.

2109. It is generally admitted that at the present time the Marconi people can do their business; that the inevitable interference does not hamper them very materially. Would you say that their development of the business of wireless telegraphy is due to the fact that they have undertaken it as a company instead of leaving the thing to be undertaken here and there in different countries?—I think there is no doubt about that. Their present position they owe to having worked the thing on business lines a large company and studied organisation. I think that is so.

2110. And at present you would say they have a network covering a considerable part of the world?—I am not prepared to say "a considerable part of the world," because there is the United

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[Continued]

Mr. Gwynn—continued.

United States, and they have a very considerable organisation I know.

2111. As regards the question of the Malin Head operators that you referred to, I think you misunderstood Mr. Cuthbert Hall. I put it to you that, admitting that your operators were perfectly good, is not the moral of that, that where there is separate control of operators things do not go on so smoothly as where there is only single control of operators?—It all depends upon how the authorities work together. I agree that with a single control of operators you generally do better than with separate control; but I think the idea was that this agreement was to bring us together and that we were to work in a friendly spirit; and I am sure the thing could have been managed, though I agree with you that the fact of having two operators, the one belonging to a company, the other to a corporation, might point to recriminations between the operators unless that spirit of conflict was rigidly repressed from headquarters.

2112. Lloyd's and the Marconi Company were different organisations, and you attribute the friction that occurred at this particular station to the want of perfection in the relations

Mr. Gwynn—continued.

between Lloyd's and the Marconi Company?—Mr. Cuthbert Hall, I know, wished to drag this extraneous matter into this thing; I have no desire to refer to it except to stand up for my men, whom I have found to be a singularly zealous and intelligent body of men and well up to their duties.

2113. I do not think Mr. Cuthbert Hall meant to cast any reflection upon your men particularly, but does it not illustrate the fact that where there are two controls there is likely to be friction, and that where there is one control there is likely to be an absence of friction?—Generally, I admit that; but I will not admit that friction is necessary with two controls. If the heads on both sides enter into their work in a liberal-minded way, there should be no friction.

2114. And it is quite as possible, is it not, that there should be friction between two Governments as between two companies?—That is quite so.

2115. And friction did arise between Lloyd's and the Marconi Company although they had a common interest?—I am afraid our interest was not altogether a common one as it turned out.

Tuesday, 23rd April 1907.

MEMBERS PRESENT:

Mr. Adkins.
Mr. Sydney Buxton.
Sir John Dickson-Poynder.
Mr. Gwynn.
Sir William Holland.

Mr. Lambert.
Mr. Arthur Lee.
Sir Gilbert Parker.
Sir Edward Sassoon.

Sir JOHN DICKSON-POYNDER, BART., IN THE CHAIR.

Sir OLIVER LODGE, called in; and Examined.

Chairman.

2116. I understand that you have devoted a great deal of attention to electric radiation before 1896, and even in years previously to that?—Yes, indeed, and even before 1890. I have worked at the subject since the “70’s” on the strength of Clark Maxwell’s theory. I wanted, as a matter of fact, to be the first to produce electric waves in accordance with his theory, and in 1887 and 1888 I nearly did so. I detected the waves running along wires and published the idea of getting them across space by the discharge of what was virtually a Leyden Jar; but in 1888 Hertz, quite independently, transmitted them across space, and they are properly known by his name, “Hertzian waves.” I continued to work at them, however, and published papers on the subject in 1888, 1889, 1890 and 1892, devising several means of detecting them—one of them a point coherer, which I afterwards replaced by a Branly filings tube. I did not call the filings tube a coherer. I discriminated. It is not now the custom to discriminate. Since then I have returned to something more like my original form of coherer, which at first, of course, was very crude; still, it contained the principle. I had nearly every kind of Hertz oscillator working at Liverpool, from quite small ones to big ones, emitting waves 100 yards long, which caused sparks from the roofs of neighbouring buildings as well as in water-pipes and gas-pipes. Some of these sparks were seen publicly at the Royal Institution, and also at the hall of the Institution of Electrical Engineers they occurred high up in the wallpaper, which was gilt. I used earthed as well as insulated collectors. All this is published in a book of mine published in 1892.

2117. Then can you tell us what you did in 1894, and what you have done since?—In 1894, with the help of the Branly filings tube, the matter became much more definite and easy. In 1894 I gave a couple of demonstrations, one in

Chairman—continued.

June at the Royal Institution and one (in August, I think) at Oxford, to the British Association, using Hertz oscillators for transmitting signals, using a Morse key in connection with the sending coil, and a Thomson marine or speaking galvanometer for receiving them—sending the signals from one room to another through walls and so on. I sent them also across the quadrangle of the college at Liverpool; but I applied very small power and did not try for big distances. At that time Dr. Muirhead was struck with its applicability to practical telegraphy, and when in 1896 Sir William Preece told the British Association meeting (as it happened in my laboratory) at Liverpool that an Italian gentleman (at that time unknown) was interesting the Post Office in a secret box, I knew practically what the box must contain, and immediately afterwards (the same day) I showed to a few friends a Morse tape instrument, very roughly, working on that plan. Mr. Marconi and Sir William Preece together interested the whole world in the subject; great power was applied to the sender, and the matter became of financial importance. I will say, however, that the American Patent Office gave me later on a telegraphic patent based on my work, as published in 1894, after proof that this book had reached America in or before 1895.

2118. When was your first English patent taken out?—In 1897. I am not the first English patentee in the subject, but I regard that as the first tuning patent. I then stated clearly, and patented, the fundamental method on which all tuning must be based, utilising for the purpose the ideas contained in my sympathetic Leyden Jar resonance experiment, which is known to physicists.

2119. Can you tell the Committee what patent rights the Muirhead Company have?—Beginning, I think, in 1897 there have been a good many patents taken out. I have not a list of them, but that can be put in of course.

2120. Dr.

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Sir OLIVER LODGE.

[Continued.]

Chairman—continued.

2120. Dr. Muirhead can tell us that probably?—Yes.

2121. Will you explain to the Committee briefly the principle of tuning?—Yes; I will not take up much time on that. I will only say that the difference between a tuned station and an untuned station is that in an untuned station you try to concentrate all the energy in a single snap, as it were—like a whip-crack; by which means you can go to great distances, without discrimination or selection. But in a tuned station you try to produce a continuous succession of impulses—each one too weak to achieve anything by itself, that is essential—each too weak to achieve anything at a reasonable distance by itself, but such that the timed accumulation of the impulses shall give the signal. It is analogous to stretching a string on a *sound* board and plucking or bowing it instead of using it as the tail of a whip. You get much less noise—much less disturbance, that is to say; but it is of a definite pitch or frequency, and can make a similarly tuned string at a distance respond; but if the other string is not properly tuned there will be no response. To adjust the tune in the case of the string you either slacken its tension or you load it by coiling wire round it. The same two things can be done in electricity; you may add capacity or you may add self-induction, and thereby adjust to any particular tune or wave-length you require.

2122. When stations were properly tuned together, as you have described, are they able to speak to each other without disturbance from neighbouring stations?—They are able to speak to each other without disturbance from neighbouring stations under certain conditions. If the neighbouring station was exceedingly *neighbouring*—in the same place—I take it that it would make a disturbance.

2123. However well tuned?—However well tuned—yes; if they were exceedingly close together—but you would not call them two stations in that case. If you have two stations at a moderate distance, one of them is able to speak to a station at a much greater distance without being disturbed by the near station.

2124. How many miles would you describe as a “moderate distance”?—My experience leads me to say that a station 10 miles distant can have its disturbance completely cut out, while you can nevertheless receive from a station 60 miles off, across land; across sea you could speak further.

2125. Without disturbing the station 10 miles off?—Without being disturbed by it; without disturbing it if it had proper tuning appliances.

Mr. Lambert.

2126. And would that ratio be the same supposing you multiplied the distance by ten?—I have no experience of very large distances, nothing more than 200 or 300 miles. Yes, I take it that it would; in fact, I think I may say more than that; I have been rather cautious in my statements. I would like to say a word or two more about that if that is regarded as important. I do not know whether it would come better later.

Chairman.

2127. I think this would be an appropriate place now, if you could enlarge upon that. The Committee are very anxious to know to what extent one station in comparatively close proximity to another station might be disturbed or be responsible for disturbance. We have had different distances given us by different witnesses, some have given 50 miles and some more. I think as a distance which would cause disturbance?—Well, I do not think anybody has quite such perfect tuning as we have now—I am not sure about that—I mean we have very perfect tuning. I will put it in that way, and the result is that we are able to work on a certain note with the apparatus made so insensitive that it will not hear any other station, although the other station is purposely making a great disturbance, say, for experimental purposes. If I may give an instance:—working at the station at Hythe *here* (*pointing to a sketch*), we were signalling 60 miles away, to Elmers End in Kent, or rather we were receiving from Elmers End in Kent; at the same time a station at Dover was shouting, so to speak, for all it was worth.

2128. How many miles off Hythe is that?—Nine or ten miles off.

Sir Edward Sassoon.

2129. About 11 miles, I should say?—About 11 miles. If we wanted to hear Dover we could hear it perfectly of course; but we could also arrange so as not to hear it—we could completely “tune” it out.

2130. By “we” do you mean your own system?—Yes.

2131. Or do you mean the system generally in use in this country?—We were working with our own apparatus.

Chairman.

2132. So that Dover you mean might be communicating with Elmers End, and the communication would not be received at Hythe?—Elmers End was sending to Hythe; Dover was also sending to Hythe; we could hear both messages if we wanted to; we could hear Elmers End, which was a tuned message alone, if we wanted to, without having any disturbance whatever from Dover; and this, not by skilled operators picking out the one note—that also can be done—a skilled operator who has two signals coming on different notes coming through the telephone can attend to the one and not to the other, just as one can attend to one conversation when other conversations are going on.

Mr. Gwynn.

2133. Coming on the same antenna?—Yes, I am told so; I cannot do it myself. But in this case I do not mean that; I mean that we got a record on the tape when the tape showed no disturbance whatever from the near station, whereas it gave completely the signals from the far station.

Mr. Sydney Buxton.

3134. You are speaking of your own system, are you not?—Yes, I am speaking of our own system.

2135. Do

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Mr. Sydney Buxton—continued.

2135. Do you know how far that applies to the other systems?—No, I do not, but there is no very great difference between one system and another, except, perhaps, in the matter of the tuning arrangement.

Sir Edward Sassoon.

2136. Would you say what it was that enabled you to bar the disturbance at Hythe?—Yes, I will (making a sketch). I wonder if these curves are intelligible. *That* curve represents the kind of energy obtained from an untuned station plotted out for different frequencies of disturbance; so that if *this* is the main frequency, *here* you have lower pitched notes; *here* you have higher pitched notes, and you get some of all; but when you have a tuned station, then the lower pitched notes produce practically no effect, or very little, and the higher pitched notes produce very little effect; but the notes just about the right scale produce a very large effect; the one note rises to a maximum. *That* is the kind of disturbance received for different pitches from a tuned station and *this* from an untuned station. Now supposing they are both being received at once, the plan is to make the apparatus more and more insensitive. *Here* you have a tremendous amount of power which you do not want; there is much more power than you want from a tuned station at a particular note; you can therefore purposely make the apparatus insensitive, by separating the inductive connection, so that nothing is felt but the top of the curve—so that nothing below that intensity produces any effect. You then work entirely with what we call “the top of the curve.” *That* bit can be received even by the insensitive plant—the rest is all *tuned* out. If you restore the sensitiveness you speedily lower *that* line, and when you come to *there* you begin to pick up Dover again. *This* represents the Dover disturbance, *this* represents the Elmers End or Sydenham disturbance, and when the apparatus is tuned and made insensitive—when it is made insensitive—then you only get the isolated peak, and all other disturbances are absent; but at any moment you can restore the sensitiveness and pick up all the stations in the neighbourhood.

Chairman.

2137. Will you describe your own system now, or is this common to all systems—this method?—I have not experimented with any other.

2138. You do not know whether other systems carry out the same operations as you have just described to us?—No, but I am sure they could if they had the proper tuning arrangement. I do not think the word “systems” is very good really.

2139. I am afraid I must apologise for its use?—It is the common word. I only mean there is no very great difference, no fundamental difference, between the “systems.”

Mr. Gwynn.

2140. Does this concentration of a particular note depend on the employment of a particular wave length?—Yes.

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Mr. Gwynn—continued.

2141. Or can the same concentration be obtained in some other way—supposing Dover and Elmers End were using the same wave length, could you obtain that result?—If Dover and Elmers End were using the same wave length you could not.

2142. They could not obtain the same result?—You mean if Dover wished to produce disturbance it could?

2143. Yes: that is to say selectivity can only be obtained if you have power to choose the wave length that you want?—I take it that in times of peace different stations would each have its own note, as it were, and then you could speak to one and not to another.

2144. This is very hard for me to understand. Can you have your own note without having your own special wave length?—No; it is the same thing.

2145. It is the same thing, is it?—Yes.

2146. Precisely. Then the power of preventing interruption depends upon the free choice of wave length?—The power of preventing interruption depends on some control over the wave lengths which different stations use.

2147. If I may, I will put it to you in this way. It is held to be very desirable under this Convention that each station should be as free as possible from being interfered with, and should interfere as little as possible with other stations?—Yes.

2148. To obtain that end is it desirable that each station should be able to select a wave length for itself?—Without any central authority to combine them? I think if each station acted on its own devices it might clash with others, or perhaps it might be hitting upon a wave length which was not suitable.

2149. May I put it like this; any regulation which limited the choice of wave lengths for a particular station would limit that station's power to avoid interference and to avoid interfering?—Yes.

2150. That follows from what you have said practically?—Yes.

Chairman.

2151. The Committee can gather from what you have said, I take it, that you contend that with proper tuning there need be no undue interference between stations, even if they are situated comparatively close to each other, that the system has been perfected to that extent now; you contend that you can avoid interference, even between close stations, if those stations are properly tuned?—That is quite true—yes, and if they are willing to work harmoniously. In war—I do not know that you care about war—but for hostile purposes it would be quite possible to produce disturbance. I can imagine a station running up and down the scale and emitting all its wave lengths, and therefore producing some disturbance, what amount of disturbance I do not know; I think it would be difficult to prevent disturbance if it were wanted to produce it.

2152. But it can be prevented with proper regulations and proper tuning?—Yes.

2153. On the other hand if stations are so tuned together as you have described what would

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Chairman—continued.

would be the effect on stations untuned or otherwise tuned. Do you see the point now?—You mean: Could they be heard?

2154. Yes. When you had carefully regulated to avoid interference by the particular tuning, could you get the message on to the untuned or otherwise tuned instrument?—That is a very important question. I would like to say that the tuning is so easily adjusted that it is only a matter of putting in a few pegs to alter from one tune to another—switching over a handle will change the note altogether from one to another; and you can also restore the sensitiveness and do away with the tune whenever you wish, so as to pick up every kind of disturbance. For instance, a coast station ordinarily speaking to some land station on a certain note, so as not to interfere with other coast stations, could, when not so speaking, clamp itself up ready to receive every kind of disturbance, tuned or otherwise, from passing ships—that is to say throw itself out of tune altogether—make itself an untuned station for the time, and instantly restore the tune whenever it wanted to; moreover, it could restore tune A for one station, and tune B for another station; that is quite feasible.

Mr. Gwynn.

2155. I do not quite follow that; do you mean that it could simultaneously be tuned—A to one station and B to another?—No, not simultaneously, but by a switch.

Mr. Sydney Buxton.

2156. Within a minute or two or less?—Less. It is very quick work to change from one tune to another.

2157. You can connect or disconnect at will in a few seconds?—Yes. Consider a pair of stations A and B, and another distant pair C and D. It would be possible for station A to speak easily to either C or D, these two being close together; it would also be possible for station A on one note, or wave length, and station B on another wave length to speak to both C and D—B speaking to D, and A speaking to C simultaneously; but it would not be possible for A to be speaking while B was receiving.

2158. Simultaneously?—Simultaneously—that would be duplex; I do not say that “duplex” will never be possible, but the other (which is technically called diplex, or speaking in the same direction) is possible.

Mr. Gwynn.

2159. Within what limits of wave length can you achieve that cutting out or selection—that is to say by how much per cent. must one wave length differ from another so as to render it possible for one message to interfere with another?—Well, I should have to look into the figures for that, but my assistants assure me that they can do it with something like one per cent. of change; I think it would be wise to have more margin than that.

Chairman.

2160. All you are telling us now refers exclusively to the “Muirhead,” does it not?—

Chairman—continued.

The Lodge-Muirhead; I have no experience of any other apparatus.

2161. Can you tell the Committee if you have had any actual stations at work which demonstrate the accuracy of tuning as you have described it?—Experimental stations, yes. Those between Hythe and Dover in Kent have been shown to officials. I believe Mr. Gavey himself saw this demonstration that I speak of, when Hythe was receiving from Elmers End, while they were not disturbed by Dover, though Dover was making a great disturbance. He saw, I think, that we could tune out if we wanted to, or we could listen if we wanted to.

2162. Those three stations you have mentioned are all experimental stations?—Yes; they are not commercial stations.

2163. Do you consider that a wireless station should be able to receive messages from ships and other stations when it wishes?—I should regard it as the duty of a coast station to receive messages from passing ships when not otherwise occupied in conversation.

2164. Of course I mean by a system of intercommunication between any of the systems?—I should hope that all systems would intercommunicate. If you call them “systems,” yes. I mean I regard the matter of intercommunication as of great importance. I am not sure that the word “systems” is the right word.

2165. I shall be glad to use any better word if you can give me one?—We had better stick to the word generally used perhaps.

2166. What is the proper word?—The matter is of so great national and international importance that I should think private interests ought not to interfere in this case.

2167. Do you consider that every telegraph station should be bound to receive and transmit messages of this kind when not actually engaged in conversing with some specially attuned station?—Yes, I do, indeed. I should have thought (with deference to the opinion of this Committee, of course) that that was the right thing. I only mean to say that it would be advisable, and I should think it wise to have it so arranged.

2168. Then, on your plan, would it be feasible for one station to select a correspondent out of a group of neighbouring stations, and speak first to one and then to another of this group?—That is so, yes. That is what I have tried to explain can be done by choosing the wave lengths to suit the members of the group.

2169. Do you claim novelty in the tuning methods represented by your patent of 1897?—Yes, I do. I think I was the first to get a tuning patent, and also it represents my work of previous years in the matter of tuning. A great deal depends upon that syntonie Leydenjar experiment—the sympathetic connection between one circuit and another, so that when they are accurately tuned they shall respond to each other, and not otherwise.

2170. Do you think it advisable that your system, or any other system, should be granted a monopoly for any purposes?—I do not, I think it would have a very bad effect; I consider that taking into account all the work that has been done, there is no legitimate ground

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Chairman—continued.

ground for such a request on the part of anybody.

2171. Have you any evidence that your system is efficient as regards small power over a considerable distance?—Yes, the evidence that I would like to put in about that is the Andaman Islands, where signalling is carried on commercially, and for Government purposes I suppose, between Burmah and the Andaman Islands.

Sir Edward Sassoon.

2172. For what distance?—300 miles between the stations, but it is across-sea. We have largely worked across land for experimental purposes because we realised that that was much more difficult and more worthy of scientific attention; but across sea we got to 300 miles with an absurdly small power—I am told $1\frac{1}{4}$ horse-power. We specified very small power, having faith in our coherer and arrangements. There it works very well. The whole thing has been published by officials of the Indian Government. The Indian Government has published the Report, which can be put in and which shows that that works extremely well with very small power.

Mr. Gwynn.

2173. Would you mind saying what relation the " $1\frac{1}{4}$ horse power" bears to the $1\frac{1}{2}$ kilo-watt which is authorised under the Convention?—Well, they are not very different from one another.

Sir Edward Sassoon.

2174. "One kilo-watt," is it not?—One kilo-watt would be about $1\frac{1}{4}$ horse.

2175. Would that be on experimental lines between Burmah and the Andaman Islands?—No.

2176. Commercially?—We merely sent out the apparatus to the Indian Government. They rigged it up by their officials, one of whom, however, had been trained at Elmers End. We have used it for training—if you may call it "training"—for anybody who came, such as from the War Office, and so on. They put it up, and are working it themselves.

2177. Your company has nothing whatever to do with it?—Subject to correction, I think they simply sold the apparatus for the Andaman Islands.

2178. It is worked by the Indian Government?—Yes.

Chairman.

2179. Is 300 miles the greatest distance that a message has been transmitted?—Oh, no; Marconi has gone much further.

2180. I mean at *this* station?—As far as I know, yes.

2181. How does the power of that station compare with the power of a high-power station like Poldhu?—There is no comparison whatever. Our power is quite insignificant. It has this advantage—the very little power—I think, that it makes less liability to disturbance. We are only using the power that is really necessary to go the distance; Poldhu is an enormous and

Chairman—continued.

most interesting experiment for trying to get across the Atlantic. We have never tried to do that; we have never had the capital or anything like it to do things like that.

2182. It would only be a question of increasing the power, would it?—No doubt it is chiefly that—*chiefly*—but there may be something else to be said for long distances; I do not know about very long distances; I should say it is a question of increasing the power.

2183. Do you attach much importance to the claim of an earth connection, both for sender and for receiver?—All earth connection we have learned to regard as bad. In my 1897 patent I did not use much earth connection: certainly in the old experiments of 1889, of 1890, of 1892 and of 1894 I seldom used earth connection—sometimes for collecting, but never for sending. Well, yes, sometimes for sending, but never for tuned sending or anything like tuning. I do not want to say anything about other systems particularly, but Mr. Marconi did use the earth, and seemed to get his great distance by that means, and attached considerable importance to it; and I was tempted to attach considerable importance to it also, but we have found—and I think it may be so; for an untuned station it is so; for what I call the snap or whip-crack system I should say the earth is a help, but for real tuning the earth is deleterious, and we consider that we have obtained our best results—our singularly good results, I think, both as regards tuning, and as regards distance in the Andaman Islands with so very little power, by discarding the earth altogether and using two insulated aerials, one above, one below. One method of throwing the station out of tune is to connect the lower aerial with the earth; directly you do that the tune is gone; you can then pick up a lot of disturbances; you can listen, you have the means of hearing stray messages, but you have the means of sending out one definite wave length, which by a tuned receiver can be picked up at a surprising distance with very little power. The power increases enormously with sharp tuning. This peak that I have been speaking of occurs directly you avoid the earth; when you connect to the earth it goes back to that long low kind of curve (*pointing to sketch*).

2184. So that you attribute one of the chief reasons of your being able to avoid interference to the fact that you have discarded the earth connection?—True.

2185-6. Do you know what other systems are using at the present moment? Do they still retain the earth connection?—I am not quite sure about Professor Braun and the Germans; I am not sure; I rather think they have found the same; after a visit to Elmers End—I have been told so, but I do not know about it.

2187. Does Marconi retain the earth connection?—As far as I know; and it may be that if they use the whip crack they are right; if they do not go for tuning.

2188. Do you attach importance to the inductive or transformer method of connecting the coherer circuit with the collecting circuit?

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Chairman—continued.

As regards that, let me ask you—Is there any point that would be of use to us in matters relating to this very scientific research; if there is not, we will not trouble you to answer that question?—I do not think it is a thing the Committee need go into, because it is a matter really more for patent considerations than anything else; I will only say that I do attach importance to the inductive method.

2189. Unless they have some actual bearing upon the enquiry before the Committee, we will not ask you about it or take up your time unnecessarily?—Just one word about it. The method is not to connect up the two together; but, having the two connected inductively together, the advantage is that when you want to make the thing insensitive you separate the connection, and when you want to make it sensitive—to pick up all disturbances—you clamp them together *so (describing)*, that would be the way to pick up all disturbances. Then, in order to work at the top of the curve, you separate them until they become very insensitive and only just respond. Under those circumstances you can only hear the accurately-tuned disturber.

2190. Is it easier to signal across the sea than to signal across the land?—Oh, much easier; there are no obstacles there.

Mr. Lambert.

2191. Why is it easier?—Well, if you signalled across the Sahara, I do not know whether that would be as easy as signalling across the sea. It is a question of whether the conducting power of the sea helps you. I rather think it may, by reflecting the waves, just as I think the upper region of the air may reflect the waves and enable great distances to be obtained; but on land you have not got a good conducting surface and you have also many obstacles—not only trees and houses, but hills and irregularities of all kinds, and the same power which would go 50 miles across land would go some hundreds of miles across sea.

2192. What happens to the radiotelegraphic wave when it comes up against a hill?—I might say, "Ask me another." Well, I suppose it goes round it. When you are working immediately under the lee of a hill it is quite difficult, but we have succeeded in getting messages there—it certainly is a considerable obstruction. If you go outside the shade you get it much more easily. *This (describing by a sketch)* being a hill, speaking from here, this is a difficult place; some can go through, but, I should think, most go round.

Mr. Arthur Lee.

2193. I understand, then, that the advantage of the sea is not so much in the composition of the sea, as compared with the land, as in the sea being level, is that it?—Yes; but there is some difference of opinion about it; I mean if you had Lord Rayleigh here, who is the chief authority in the world on mathematical physics, he might express some doubt as to what the sea does.

2194. The obstacles you speak of are purely physical obstacles, not electrical obstacles; I

Mr. Arthur Lee—continued.

mean, for instance, a tramway system intervening, would that affect it?—Oh, no; not little things like that.

Mr. Lambert.

2195. Would an obstacle be more effective in preventing communication, the closer it was to the station?—Quite true; the closer it is to other stations it is the more affected; an obstacle half way between two stations would be no harm at all—practically no harm; it depends on its proximity to one or other of the stations; a range of Himalayas (mountains) might be an obstruction, even half way between.

Mr. Adkins.

2196. A range of hills?—A range of mountains; but low hills and things like that do not matter if they are at some distance from each station.

Mr. Lambert.

2197. How high do these waves travel?—Subject to correction by any scientific man present here, I look upon the water as one conductor and the upper regions of the air as another conductor—the rarified air—and both those are rather opaque—conductors are always "opaque"—hence I take it the waves go between; if they impinged on the water they would be reflected; and I think the upper regions of the air may have a useful reflective influence on the waves; I think the waves might possibly get up there and then come down again by reflection, when they travel very large distances; but all that is theoretical.

Mr. Arthur Lee.

2198. Now let us come back to the question. Is it not a fact that wireless messages have been transmitted from one closed room to another closed room?—Oh yes, brick walls are not much obstacle.

2199. They are not much obstacle to wireless telegraphy?—No, not much; metal walls would be.

Chairman.

2200. I think we do not feel justified in taking up your time any longer on the scientific side, although it is intensely interesting to us to have our elementary education upon this subject, but what I gather from your evidence to-day is that you claim, as representing the Muirhead Company, to have made a substantial advance in the perfection of wireless telegraphy on certain other systems?—I think the Muirhead Company claim to have the best system of tuning and the best coherer. I claim to have done scientific work of a pioneering kind before 1896. As far as I recollect, those would be our chief claims.

Mr. Arthur Lee.

2201. That would be in connection with the Hertzian wave, I suppose, principally?—Yes, I have worked in connection with the Hertzian waves to some extent with regard to their detection

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Mr. Arthur Lee—continued.

tion; and then, after telegraphy became, we will say financially, important, I pursued the researches on scientific lines, working on a small scale to get wireless telegraphy into a state of greater perfection, and I think we have succeeded in getting both the best coherer and the most accurate method of tuning.

Chairman.

2202. And are you in a position now to increase your stations, or would you be, were existing obstacles removed?—That, I think, is only a question of capital, and such like.

2203. Only a question of capital?—My partners would answer that question, I have not anything whatever to do with that side of the matter.

2204. Did you interest yourself generally in the International matter of the Convention at Berlin?—I did as far as it was currently reported.

2205. As far as you are able to gather from your point of view, are you willing that its conclusions should be ratified?—Yes, I am. It seemed to me that they were very sensible, and I do not detect any of that foreign dominance which some newspapers spoke of; it seemed to me that the British Delegates looked after the interests of this country very well and that the conclusions which were arrived at were of a satisfactory character.

2206. You do not anticipate that there will be any difficulty in enforcing the regulations embodied in the Convention with regard to the prevention of interference and confusion?—No; on the other hand I think that they are necessary in order to prevent interference and confusion when wireless stations multiply.

Mr. Gwynn.

2207. Would you mind telling me what was the first date and place at which you transmitted intelligible messages by means of the Hertzian waves?—You mean by "intelligible messages," messages on the Morse code?

2208. Practically—yes?—Which conveyed intelligence?

2209. Yes, more than a mere signal which could be construed to be "Yes" or "No."?—In my early experiments, and in the demonstration of 1894, I did not attempt to transmit words by the Morse code; I used a Morse key and a mirror-signalling instrument, so that if I had been an expert telegraphist it would have been quite easy to send words, but all I did was to send short and long signals.

2210. That is to say, you claim that you showed wireless telegraphy potentially, but not actually?—That is so—not actually—no.

2211. But I gathered from you that the idea of using Hertzian waves for practical telegraphic work did not occur to you until after you had heard of Marconi's achievement?—It occurred to Dr. Muirhead, who spoke to me about it, and who has his mind on telegraphy, but it did not specially interest me—not so specially.

2212. In fact it occurred to him, I understood you to say, after Marconi's?—No, after the 1894 demonstration.

2213. Before 1896?—Yes, in 1894 he was present at my lecture.

Mr. Gwynn—continued.

2214. But previous to 1896 you did not give the invention any practical application?—No.

2215. And in your system, or method, or whatever we agree to call it, you employed some form of a large upright wire or antenna at both transmitting and receiving stations?—We employ the Hertz emitter—two plates, two large plates one above the other, such as I have used all along, regular Hertz vibrators.

2216. Then you did not use the antenna—the aerial wire?—No. I did use collecting wires some time in 1890, and much later a lofty wire sometimes, but we do not use them now; we have got back to the two tuned Hertz vibrators, the receiving end and the sending end being the same in appearance.

2217. Then your system does not, I understand (I am sorry I misunderstood your evidence on this matter), employ any form of elevated wire or antenna?—It employs an elevated aerial plate, which is made of wire, but it is not a wire up a mast; it is a large aerial like that (describing by a sketch).

Mr. Arthur Lee.

2218. You said a "plate." Is that made of wire?—I used to employ actual plates, but when you put them out of doors there is this disadvantage, plates catch the wind too much, so we use a framework of (practically) wire.

Mr. Gwynn.

2219. And those wire frames at both sending and receiving stations are essential for the conduct of wireless telegraphy over any given distance?—For tuned wireless telegraphy.

2220. For tuned wireless telegraphy you say?—I think for the whip-crack method—if I have made myself clear about that—the single elevated wire is probably the best; I think it was by that that Mr. Marconi got his big distance at first.

2221. Yes. What was the first occasion and date, do you remember, when you transmitted two different messages simultaneously and received them on the same aerial or a neighbouring aerial?—The perfection of tune has been only obtained comparatively recently; it is on the principles laid down in my 1897 patent, but the defects of the filings tube—the uncertainties of the filings tube—retarded progress in accurate tuning for some time. Since we have got the wheel coherer, which I regard as the best, tuning has become much more satisfactory and perfect; and these final experiments that I have been speaking of lately are quite recent—within the last year or two; but it is applying the same thing as before, only with experience and a better coherer we get on so much better.

2222. I asked you a question a few moments ago about the necessary variation of the limits of wave length in order to separate stations?—Yes.

2223. You said that your operators put it as low as 1 per cent.?—Yes.

2224. That is to say, a station using a 300 kilometre wave length could work conveniently in the neighbourhood of one using a 295 kilometre wave length?—Yes; it would be rather "watch

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Mr. Gwynn—continued.

"watch making" to do it if the other one was near; but if the other one was at a distance I think that would give sufficient discrimination; but I would not like to press that too much.

2225. Have you any personal experience that would show how far apart coast stations would need to be, so that a ship near one station which was using, say, a wave length of 300 kilometers should not affect more than one of the two stations?—If they were not carefully transmitting—if they were clamped up so as to receive all disturbances; they would, many of them, feel it if they were 10 or 12 miles apart.

2226. But if they were carefully tuned at 300 kilometres and 295 kilometres there would be no great necessity for a long distance intervening?—No, not if they were sufficiently well tuned, provided the ship was tuned too; I think that would have to be.

2227. Do you think that the limit of choice of wave length imposed by the Convention injuriously limit the power of selection of a wave length?—There was a considerable margin; it seemed to be the kind of wave length within which we are working at present; I suppose everybody is working within those limits at present, and I suppose they could be enlarged sometimes if it were found necessary.

2228. By the Convention all wave lengths between 600 and 1,600 were limited for naval use?—You mean to say excluded from commercial use?

2229. Were excluded from commercial use: You do not think that that would interfere with the commercial purposes stations sending their long distance messages, such as the Poldhu one?—I should not like to say much about the Poldhu station. It does seem to me that that would be rather liable to interfere with ships—there is such very great power there—and of course it is intended to have very great power.

2230. Would it not be possible for the lower power stations to tune-out those Poldhu messages provided they had a considerable range of selection?—Yes, if they are not too near.

2231. If I may I will put it in this way: Assuming that you have a ship within three miles of The Lizard, which is carrying a telegraphic apparatus and employing a 600 metre wave length (that is one of the maximum wave lengths permitted) and communicating with a station at Ushant, would it be easier to avoid interference with The Lizard station if you at The Lizard station employed the same wave or were free to use a different wave length?—I think it would be certainly advantageous to be able to use any wave length you wanted.

2232. Practically the Telefunken fitted ship would be bound to interfere with The Lizard station if The Lizard station used the same wave length?—Yes, unless it changed it would; I do not regard any station as fixed to a wave length so that it cannot change from it if it wishes to.

2233. Certain wave lengths are prohibited for commercial purposes. I understand that is so?—Yes, I know. You mean that the margin that is left is rather narrow?

2234. Supposing that The Lizard station is free to choose its own wave length—say 650 or 700 metres—it would then be practicable to

Mr. Gwynn—continued.

work The Lizard station without interference, would it not?—Yes, but if it went down to 550, would not that do as well?

2235. I am asking the question of you—might it not in that case lose some of its efficiency?—By shortening the wave length?

2236. By shortening the wave length?—No; I do not think so. I have not found that.

Sir William Holland.

2236A. I am sorry I was not here at the commencement of your examination. May I ask you if you have in the course of your evidence enumerated points which you think would be some of the evils that would accrue to this country if the Convention were not ratified. Perhaps you have dealt with that?—No; I have not dealt with that.

2237. Could you shortly just mention some of the evils which you think we should suffer from?—I do not think I am very competent to do that, but it seems to me that if we stood out while all the other countries held in we should be at a disadvantage, and have to come in later on on worse terms. That is how it presents itself to me.

Sir Edward Sassoon.

2238. You just now said that if this country failed to ratify the Convention it might have to come back, if it chose to ratify it afterwards on worse terms. Would you explain to the Committee in what way this country would be worse situated?—I find it rather difficult to answer that question.

2239. On the other hand, do not you consider that the mere fact of bringing about the provisions of the Convention would lead to the establishment of a larger number of wireless stations all round the British Channel?—You mean on the opposite coasts?

2240. On the French coasts and the German and others?—Yes, that is so.

2241. The wireless stations would have to be multiplied owing to the provisions of the Convention necessitating the erection of new stations, and they might be subject to greater interferences than exist at present?—Interferences across the Channel?

2242. Across the Channel, from the mere fact of the existence of these new stations, which come owing to the Convention?—Well, I think that a multiplicity of small stations is not a bad thing. If their power is limited they cannot produce so much disturbance. If they are very large stations, which have to shout a long way, they are more likely to interfere with each other than a lot of little ones would. I would rather see a lot of little ones for coast purposes.

2243. Do you or do you not consider that the working of the wireless system by means of divided authority, and the common use of different apparatus would be harmful to the existing organisation of the wireless services of this country: in other words, that were you have messages coming to our coast stations by ships using various kinds of apparatus that might conceivably lead to the disorganisation and dislocation of the service?—I do not think that

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would. I do not know what organisation there is at present in this country.

2244. I suppose it is a matter of common knowledge what the foundation and basis of the present system of the wireless service is in this country?—It is not organised by the Government, is it?

2245. It is under the aegis and auspices of both the Post Office and the Admiralty, so far. May I put it in this way: The wireless system of this country is carried on by some organisation in this country—I cannot tell you exactly what it is—my point is whether a system of intercommunication as required by the provisions of the Convention would not disturb the service as it is carried on at present in this country?—I should not have thought so any more than receiving foreign telegrams in this country does. I take it there is an International Telegraphic Convention, and I should have thought the same thing would wisely extend, in times of peace, to the sea also.

2246. Pardon me, Sir Oliver, I think there is rather a flaw in your analogy, because a cable message is sent by means of one centralised control to another place where there is another centralised control, but in the case of this Convention you would have different controls—divided authority—sending messages to another place?—Yes, I should have thought that by leaving it to private enterprise, and to conflicting private interests to set up different stations there might be confusion, but that if taken up by a central organisation and arranged there would be less.

2247. There would be less confusion you mean?—I should have thought so.

Mr. Sydney Buxton.

2248. By international agreement—central international Government, do you mean?—Well, I do not know how. I suppose our own coast stations would be subject to our own Government.

Sir Edward Sassoon.

2249. So that in spite of what you have just said you regard with equanimity the coming into force of the Convention in spite of the possibility of interference?—I think it would tend to minimise interference, but of course I might be wrong.

2250. I thought you said just now it would be likely to be increased if messages were sent by systems under different controls?—If it was left without organisation, but left to the private companies, which had the stations, whether they should receive and transmit messages or refuse to transmit them there would be a great deal of confusion; but if it was organised under Government or some central authority that inconvenience would be minimised. That is what I wanted to say.

2251. Do you consider that the stipulations of the Convention provide sufficient means for exercising effective control in the enforcing of the Regulations?—I have not studied it you see as an expert at all; I do not think my opinion is worth anything there; but I do not see any objectionable feature in those conditions which I saw published.

Sir Edward Sassoon—continued.

2252. You have not studied the Convention sufficiently to enable you to say whether the Regulations could be enforced?—No, except that I do not see from a technical scientific point of view, with my experience of the thing, any insuperable objection to that; I thought they were wisely drawn up.

2253. I beg your pardon, Sir Oliver, I want to know whether you think the means provided by the Convention are sufficient to enforce the carrying out of the Regulations without which the disturbance would be very great. Really the whole thing hinges upon whether the Regulations could be enforced efficiently to prevent disturbance and dislocation?—I thought that we could adapt ourselves to the Regulations.

2254. You thought we could adapt ourselves to the Regulations?—That the plan with which I was connected could adapt itself, and I assumed that the others could adapt themselves if they wished.

2255. That would depend, would it not, upon whether foreign ships communicating with our coast stations equally would adapt themselves. It is a case in which two parties are concerned?—Yes.

2256. As far as your plan is concerned you see no objection to the ratification of the Convention?—No; that is my feeling.

2257. Now, will you tell the Committee whether the Lodge Muirhead apparatus receives messages on a commercial basis from ship to shore and coast to coast? Could anybody walk into a telegraph station in this country and hand in a message to be transmitted wirelessly through your organisation?—No, I do not think so. I do not think we are at all developed like that on the commercial side in this country; but I would rather you would ask one of the Muirheads that question if you would not mind. I am not at all sure that I am right in what I have said there.

Mr. Arthur Lee.

2258. You expressed the opinion just now now that if Great Britain did not ratify at the present time it would be forced to do so later on, and in that case would have to come in under a disadvantage; I think you said it would have to "come hat in hand, and to accept worse terms." Is it not expressly provided in Article 16 of the Convention that "Governments which have not taken part in the present Convention shall be allowed to adhere thereto on their request. This adhesion shall be notified through the diplomatic channel to the contracting Government under whose auspices the last Conference has been held, and by it to all the others. Adhesion involves, as a matter of right, acceptance of all the clauses of the present Convention and admission to all the advantages stipulated therein"?—I did not know that. "Hat in hand" is not my phrase.

2259. Then in view of that you would withdraw that opinion that you expressed just now?—Yes; I think I would have to withdraw that, but I do not see the advantage in delay.

2260. No, I am not asking you that; only you laid down the rather important principle that if we delayed joining in the Convention we should

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have to accept worse terms?—I gave it as my impression; it was nothing of any importance.

2261. Still if it went out to the world that that was your opinion it would be considered important?—Well, I hope not.

2262. You expressed the opinion just now that it was very desirable that there should be a multiplication of small stations along the coast; not only that, but you said before, that the efficiency of such a system would be dependent upon the adoption of a system of very careful tuning (I think those were your words) between the different instruments in use: Do you consider that the Regulations provided under the Convention do secure that a system of careful tuning shall be observed. That is to say, that the different systems of wireless telegraphy shall be carefully tuned to prevent interference if there happened to be a large number of stations?—I think they would do it in self defence; if there were a great number of stations they would not be able to carry on their business unless they tuned themselves to some extent; and I think even if they were not tuned it would be better to have many small stations than a few big ones, because they would not carry so far; they would interfere less with each other.

2263. I asked you the question because I think it was suggested by the other witnesses (the delegates) that it was not desirable to multiply stations; that the number of stations should be the minimum necessary with which to perform the necessary service, and it was rather suggested that one of the advantages of the Convention would be that it would limit the number of stations and prevent putting up unnecessary ones. You do not agree with that?—I do not see any object in putting up "unnecessary ones"; they would be put a certain distance apart, no doubt, and the Convention would regulate them, so that they would not be likely to interfere with each other, and if they could not show that they were sufficiently tuned not to interfere they would not be allowed to be put up; but I think every station ought to be able to throw itself out of tune when it wanted to in order to be able to pick up messages of a stray character; that is to say of an unorganised character—any kind of tune—I mean coast stations.

2264. Is your idea that the multiplication of stations would, so to speak, give all competing systems a better chance, or do you think it would lead to the greater efficiency of the public services?—I was thinking of the latter. I was trying to put away from my mind private interests. I think the giving of various systems a chance has an advantage from a public point of view, in that some do best for one purpose and some do best for another purpose, and gradually there will be a survival of the fittest perhaps, or at any rate it may be that a great many will survive. I do not think that the same system necessarily is the best for a coast station and for land signalling or for portable signalling.

2265. We are only considering the coast stations; I mean the Convention does not touch anything but coast stations. There is only one other question I wish to ask you, perhaps it is on a point that is not affected immediately by the Convention—but could you tell us very

Mr. Arthur Lee—continued.

shortly why messages can be transmitted much better in the day time than at night?—I think that applies to big distances.

2266. I do not know?—It seems to me rather an interesting discovery of Mr. Marconi's that sunlight interferes with the transmission of long distance messages; I have not experienced that and it would not have been expected; but when it was observed it is not, unnatural to explain it by what is called the ionisation of the air by sunlight. Sunshine is a partial conductor and any conductor is opaque, and any conducting power added to an insulator tends to increase its opacity; hence I think air full of sunshine, being a very weak conductor, is slightly more opaque than it would be if the sunshine was eliminated and it was dark; but it has not come within my experience; I am not sure about the Andaman Islands; I dare say they find it is better at night; but I quite accept the fact.

2267. But that only applies to long distances?—I think it applies to very long distances; at any rate, sunshine has not introduced any obvious difficulties over 200 or 300 miles; it may be because there is plenty of margin.

Mr. Lambert.

2268. Do you regard it as desirable to have an International Convention to regulate wireless telegraphy?—Yes.

2269. Would you go so far as to say it is essential?—Essential to have an International Convention to regulate wireless telegraphy. I should think it was quite essential as the thing develops, and in order to help to encourage international commerce and the like. In so far as international commerce is essential, I should say that this signalling is essential. Ships may be in danger, or want urgent messages conveyed, when they come near our coasts, and our ships will want the same on other coasts.

2270. And you think it is essential for British interests?—It seems to me very essential for British interests, as we have more ships than anybody else.

2271. Therefore at some time or other Britain would have to join the Wireless Telegraphy Convention?—So I thought.

2272. That being so, naturally it would be well that Britain should have an opportunity of discussing and forming regulations best suited for her own interests when the Convention was being drafted?—I think that it would be advantageous to the country to be in it from the beginning, and not to come in at some later stage when regulations had already been drawn up by others.

2273. It would be better for Britain to have a voice in the drawing up of the regulations than it would be for her to come into a Convention which had been stereotyped in the interests of other countries?—Exactly—yes.

2274. Do you anticipate further improvements in wireless telegraphy?—Undoubtedly.

2275. Is the system in its infancy?—Most scientific inventions are in their infancy. I think it must develop a great deal.

2276. That is what I want to know. There must be great development?—I myself have not been so much interested in the great distance development as in the small distance development.

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ment. I have not regarded it as a system that would supersede cables, for many reasons, but I have thought that it would supplement cables, just as the telephone supplements the telegraph without superseding it.

2277. I only want to ask your opinion as to whether in the future there will be a greater development of this method of communication?—Well, all I can say is that I think the method of communication itself will no doubt in the future be still further improved and become more easy—more practical, exact and dependable.

2278. Therefore it would not be wise on the part of the Government to tie itself to one particular system?—I think it would be much better to allow a sort of free trade, and to allow all systems to develop as far as they can—much better. I cannot think that a monopoly would be a good thing, especially at the present stage of the invention; it would, I should think, almost tend to discourage, or at any rate to diminish, the improvement of the one that got the monopoly; it would certainly discourage every one else from turning their attention to it.

2279. So free trade in wireless telegraphy would tend to promote efficiency in a system that is in process of development?—I think so.

2280. Supposing that another Power (I am talking of the International Powers) had an interest in creating confusion and disturbance in wireless telegraphy in the English Channel, would it be impossible?—It would be a sort of act of war, you mean?

2281. Well, an act of wireless war?—It would be quite possible to do it, but any Power, say outside the Convention, I take it could send a warship of sufficient power into the English Channel to produce disturbance that would make it extremely inconvenient for everybody.

Sir Edward Sasoon.

2282. Even in the absence of compulsory intercommunication?—I do not understand that.

2283. Mr. Lambert asked you whether it would be possible for any ship that was determined to do so, to throw confusion and disturbance round our coast and you said it would be?—It would.

2284. Would that not be still more aggravated if we had compulsory intercommunication with foreign ships on the British coast?—No, I do not see that at all; the ships that want to communicate would not be trying to make disturbances; they would be trying to be legible and to be understood, and if they tried to be understood they could be, I suppose; if they tried to make any disturbance they could do that too, if they had sufficient power on board.

Mr. Gwynn.

2285. But a ship belonging to a Power which had entered into the Convention would be bound by the Convention to make the least possible disturbance, would she not?—Certainly.

2286. And she would also be limited in the amount of power she could employ, would she not?—I do not know whether the Convention would limit that, but no one in the Convention could stay in the Convention and at the same time make itself a nuisance like that.

2287. That is to say, assuming England

Mr. Gwynn—continued.

remained out of the Convention, it would not be easy for the ships or the stations of any Power within the Convention to inflict deliberate injury upon English wireless stations?—Not even if England remained outside you mean?

2288. Yes?—I should have thought they could if England remained outside.

2289. If England remained outside could they, consistently with the Convention, use more than the prescribed limit of power or communicate unnecessarily, that is to say, set up wireless waves unnecessarily?—Well, then it would not be an "act of war." I should have thought that in times of war they would not adhere to the Convention at all.

2290. We are not postulating times of war; we are postulating times of peace in which England remains outside the Convention and the other Powers did not. I think Mr. Lambert's question was intended to indicate that the signatory Powers might retaliate upon England. I put it to you whether the conditions of the Convention would not hinder the signatory Powers from retaliation?—Yes.

2291. Because practically they would otherwise violate the spirit of the Convention?—Yes.

Mr. Lambert.

2292. But it would be a Convention drawn up in their own interests and not in British interests if England stood outside, would it not?—I do not think there can be any doubt on that question.

Mr. Gwynn.

2293. There has been a good deal of stress laid on this question of "wireless war," and what I want you to tell us is whether the Convention would limit the possibilities of a wireless war, prescribing, as it does, the maximum of power to be employed by ordinary commercial stations, or by ships, and also forbidding unnecessary communications?—I think the Convention itself would diminish the likelihood of a wireless war, but the staying of England outside the Convention would not diminish it.

Mr. Lambert.

2294. Coming back to my original point—would it be difficult for stations to be erected, say, in Belgium or in Germany, which would interfere with British wireless telegraphy in the Channel?—If it intended to do so?

2295. If it intended to do so, I mean wilfully?—It is difficult to say what would be possible, but we have not been interfered with by the Poldhu messages, which are the most powerful at present—we can arrange so as to hear the long-wave naval messages in plenty, but they do not disturb us; we can always discard them completely whenever we want to.

2296. Assuming that the Poldhu Station wished to make itself a nuisance, could it do it?—It could make itself a nuisance, certainly. I suppose partly it is not so much a nuisance now because it works at night, I understand; I do not know whether that is so; I certainly think it would be possible to make a really hostile station a nuisance, but from what distance I do not know. I do not think it would

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Mr. Lambert—continued.

be possible for it to stop communications, but it might make them a little more difficult and make the working rather more troublesome.

2297. The Convention, at any rate, would tend to simplicity and less disturbance?—Oh, yes, a Convention would make civilised treatment certain. I do not know that it would pay anybody to put up a disturbing station, but surely the Convention would be a good thing, it seems to me, from the point of view of peaceful development.

Mr. Sydney Buxton.

2298. I would like through you to make a point clear that has been raised by Mr. Gwynn: His point was, as I understood him, that assuming the Convention goes through and Great Britain does not ratify, under those circumstances the agreeing nations—the rest of the nations—are not only bound as between one another, but are bound not to act in a hostile way towards Great Britain which has remained outside. Is that your view of the Convention?—I am not very well up in the clauses of the Convention; if you tell me that that is so I accept it.

2299. I gather from what you have said in reply to various questions that your view would be that the best policy for this country from the point of view of wireless stations, is free trade under efficient organisation?—Yes.

2300. And that, from what you have said, your view would be that the organisation would be best carried out by an International Convention?—Yes.

2301. I also gather from what you have said that that would bring about uniformity of action and a central authority?—Yes.

2302. Which you consider indispensable in regard to this particular Convention?—So I think.

2303. I take it that so long as these various stations desire to work harmoniously together interference can be largely reduced by the modes to which you have referred?—Interference can be avoided by the modes that I have referred to.

2304. Would you go so far as to say that you think it would be to the interests of this country, as interested in wireless telegraphy, rather to have a large number of small stations with small power than to have a few with higher power?—Yes, so it has seemed to me. I do not know what the arguments on the contrary are.

2305. Would the tendency of the Convention be in that direction altogether?—They want to limit unnecessary stations, of course, but I did not take it that the Convention was intended to put down a few very large stations.

2306. I said the other way—the Convention would be rather in your direction, would it not? The larger the number of stations and the smaller the power the better?—I thought so—yes. Could it not be said that the Convention wished to limit unnecessary stations and have a voice in the erection of stations, and at the same time to decide on small power stations in sufficient numbers to cover all the coast without any one of them being able to feel unnecessarily far off?—That is how I understood it?

Mr. Gwynn

2307. I understood you to say that the power limit authorised by the Convention—that is one kilowatt—was a power limit sufficient for communicating over 300 miles?—I see your point now. I did not realise what that meant before. That is what we find between Burmah and the Andaman Islands; when they are accurately tuned together and working with skilled operators they can work with that power.

2308. So that a station anywhere in the Channel under the Convention could be felt practically all through the Channel?—Could be overheard.

2309. Could be overheard?—I do not call that a ‘disturbance’ at all. For instance, at Hythe we hear sometimes a ship entering Portsmouth when we have arranged ourselves so as to be able to hear things at a distance; but it is no disturbance whatever—it is the easiest possible thing to get rid of it; the adjustment required is to bear it, so to speak.

Mr. Sydney Buxton.

2310. And you think the interference is best got over by definite regulations?—Yes; certainly.

2310A. In reference to what you said (in reply, I think, to Mr. Gwynn) about the length of the wave lengths, I suppose you are aware that the reason for the limitation of wave lengths, or rather the exclusion of wave lengths—between 600 and 1,600—was for naval purposes, so that they could use them for naval purposes?—I suppose so.

2311. That, of course, is a considerable element in regard to the opposition that England could offer to the Convention, but I gathered from what you have said that the systems have now got to such a pitch of perfection that with that portion of wave lengths excluded there would be sufficient above and below—low power stations and high power stations—for them to vary the length of their waves for ordinary purposes of communication?—In the present state of development, and with the present number of stations, I should say those show quite that there is a sufficient margin, but I think that such a clause as that would be elastic, and would be reconsidered from time to time if the margin was found insufficient and commercial stations developed very much over and above the naval.

2312. You said you thought it would be a mistake from the point of view of Great Britain not to adhere; that she might be in a worse position if she did not. Mr. Lee pointed out to you that under one of the Articles of the Convention a nation could come in on the existing terms, and you therefore somewhat modified your answer. I want just to ask you whether you are aware also of another article (Article 11, I think it is) under which the Convention can be modified at any time with the assent of the signatories?—Well, I rather wanted to modify my answer when *this* gentleman asked me why I thought we might come in under worse terms afterwards. I did not remember why I had formed that impression, but the reason that I had formed that impression was exactly that—that if we stood outside the clauses would be modified

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modified, and the whole method would grow in complexity, and so on, without our having any voice in the matter, and then we should be coming in at a later stage without having had a voice in the arrangement of it.

2313. You think it better that we should come in at the beginning and have our proper share in arranging the matter rather than to come in later after it had been arranged by others?—That was the ground of my impression—whether sound or not, that is what I meant.

2314. In reply to Sir Edward Sassoon, you said you were not aware how you stood in this country from the commercial point of view: do I take it that Dr. Muirhead will deal with that point?—Yes; I have had nothing to do with the commercial side.

2315. And also on the question of litigation. Have the Marconi Company claimed that the Lodge-Muirhead system has infringed any of their patents?—I believe they once threatened (I think the War Office) that we were infringing, but we challenged them. I am not very good at stating this matter; perhaps you had better get it from Dr. Muirhead.

Mr. Adkins.

2316. I understand that your special developments have had relation to tuning and to promoting the ease with which you can get rid of messages you overhear and concentrate your attention on particular communications: is that so?—From the patent point of view that is so.

2317. And this power of getting rid of what you overhear quickly and without inconvenience—is that in your opinion a power possessed by your patents—your discoveries—more than by other companies?—That is my impression but I have of course no experience you see of the other system.

2318. I quite follow, but I will put it to you in another form: are you able to tell us in order to assist us to know whether the Marconi Company for instance or the Telefunken Company can get rid of messages that they do not want to hear as quickly and as readily as you can?—I should think that with Professor Braun's invention in the Telefunken they can.

2319. But you are not able to tell us one way or the other about the Marconi Company?—No.

2320. Do I understand one of your points to be that it is to the development of this power that we are to look for the further development of wireless telegraphy. Do you attach great importance to the development of this power of getting rid of hearsay, and concentrating on your own work?—Yes, I think it would be impossible to attempt to develop a system of wireless telegraphy throughout the country without such a power.

2321. And it is the regulating of wave lengths and segregating them to which you apply the word "tuning"?—Yes, and selecting.

2322. And selecting?—Using a particular wave length and changing to another one quickly and easily.

2323. Of course Dr. Muirhead will tell us the

Mr. Adkins—continued.

date of your patents and the length of time for which they run?—Yes, my first was in 1897.

2324. For how many years?—From 1897.

2325. Supposing you have one system refusing intercommunication that system of course receives messages and cannot help but receive messages from any ships within range, unless it happens to be tuned against particular messages. Is that not so?—Yes, a shore station can receive messages, if it has arranged itself so to do, from all ships within range.

2326. And unless it has arranged itself so as not to do that, it will be receiving all messages within range by whatever system they are sent?—I should rather put it the other way: it has to arrange itself definitely to receive them.

2327. But take the case of the Marconi system, do you suggest that the shore station fitted with Marconi apparatus would not receive communications, whether it liked it or not, from ships within range fitted with other systems?—Well, I think if it had an earth connection it might. I would rather not say anything about the Marconi system; I have not said anything hostile to that system, I hope.

2328. No, my questions are not hostile to anyone?—And I do not want to say much about it, because really I do not know much about it.

2329. I will try to put my point better. I want you to deal with the question of any system which refuses intercommunication, which therefore only communicates with ships which are fitted with its own apparatus, such a position is quite conceivable if not actual, is it not?—Yes it is conceivable.

2330. In that case it would have to be specially arranged to prevent it receiving messages from other systems which, presumably, it did not want to have?—Well, it might receive them and yet not transmit them.

2331. I was not asking about transmitting them; it would be receiving them?—It might be receiving them; yes.

2332. And the more messages you received outside your own system, or outside your own plan, the more the inconvenience?—Yes, I think so.

2333. My question is this: Comparing such a system, which communicate only with ships that have its own apparatus, and yet is liable to receive other messages which it does not want to transmit, does that, in your opinion, lead to more confusion than a system where there is intercommunication developed by a mutual agreement as to tuning?—I think certainly it does. I think it would be very confusing to have a lot of messages coming which you did not want and which you were not going to utilise.

2334. And you could not prevent any such messages coming unless the stations from which they came were tuned in a particular way?—No; the only thing would be, I suppose, that a ship that knew that its messages would be ignored would not take the trouble to send them perhaps.

2335. That would depend upon the amiability of the operator at the other end. Now, I want to put a point which Mr. Buxton and Mr. Gwynn have put to you, but I want to put it in

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Mr. Adkins—continued.

my own words if I can. Supposing that other nations went into this Convention and were bound by it—were bound that is to say to use certain wave lengths only for commercial purposes—and that England stayed out and the wireless war that we have all been hearing of began; England, of course, would then be in a position, would she not, to use any kind of wave lengths which she thought would interfere with her then opponents?—Yes, I suppose so.

2336. Supposing that her opponents are bound by the Convention could they retaliate on England to some extent without hurting one another and breaking the Convention as between themselves?—I understand the question, but I think I should have to think it over a little bit. At first sight one would say the Convention would hamper them in their retaliatory efforts.

Mr. Gwynn.

2337. Whereas England would be untied?—Whereas England could retaliate as much as it wanted—a very uncomfortable position.

2338. I think it seemed to be suggested in the course of various questions that the Marconi Company had not the same power of *tuning-out* undesirable messages that your Company has; is it not the case?—I did not intend to assert that; I only said I did not know that they had.

2339. May I ask an inference from that; if the Marconi Company have got two stations at Poldhu and at The Lizard—which are I believe within about seven or eight miles of each other, does not the existence of those two stations so near each other imply that the Marconi Company are able to conduct their business at The Lizard and at Podhu on different wave lengths without interference?—Yes, I should think it did; I do not know what arrangement they

Mr. Gwynn—continued.

have for conducting it: I quite hope they can *tune-out* like other people can, but if they use the earth I feel doubtful whether they can do it so well, judging by my experience, that is all.

2340. If two stations which are within range of one another are compelled to use the same wave length, will not they find it more difficult to avoid interfering with one another than they would if one station had a fixed wave length and the other station could vary its "kilowatt" at will?—I should never fix a station to only one wave length; I should let each station have its normal wave length—the one it usually employs—but it should certainly be able to vary it.

2341. And all stations can vary their wave length quite rapidly?—Yes, quite rapidly.

2342. So that for defensive purposes so to say, you can always *tune-out* interruptions?—Yes, except they are violent interruptions—very violent and untuned interruptions.

2343. And the completer your command of wave lengths the more complete is your power to avoid interruptions?—Yes; but when I speak of these very violent disturbances I do not think that any amount of tuning would get rid of them. Of course, I am speaking of very violent and very near disturbances.

Chairman.

2343A. Is there anything more you would like to add?—I have been speaking upon some subjects with which I am not very familiar, and I should like most importance to be attached to the scientific side of what I have said, naturally.

2344. And least on that which relates to the Convention itself?—That is a matter more of common-sense, is it not? I cannot speak as an expert to members of this Committee on a subject like that.

Mr. HENRY MUIRHEAD, called in; and Examined.

Witness.

I ask your permission to give evidence instead of my brother. And, before I begin, may I correct an important error which Sir Oliver Lodge fell into quite unwillingly? (I have his permission to say what I am going to say.) It was simply this one small point. He mentioned that one horse-power has been the power that we use in the Andaman Islands; it is one-half horse-power. Now that difference is very important, because great stress has been laid on using small powers. The Indian Government Blue Book records the fact that it is one-half horse-power.

Mr. Lee.

I think Sir Oliver Lodge said 1½ horse-power.

Witness.

He should have said one-half horse-power. He does not know; he does not follow all these details. And may I further add that with that one-half horse-power, when the Prince of Wales was in India a little while ago, we communicated from the Andaman Islands station to H.M.S. "Terrible," a distance of 580 miles. That, with half-horse power, is significant. It is very small indeed, and of course is important, because it lessens interference in the way that Mr. Gavey mentioned.

Chairman.

2345. What you wish to point out is that by a comparatively low horse-power you are enabled to send a message a considerable distance?—Yes. It was 580 miles from the Indian Government station at the Andaman Islands

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Mr. MUIRHEAD.

[Continued.]

Chairman—continued.

Islands to H.M.S. "Terrible," so that it is easily tested.

2346. Will you tell the Committee when you first formed a syndicate?—This syndicate was registered as a Limited Liability Company on the 29th of June, 1901, for the purpose of defining the interests of Sir Oliver Lodge and my brothers, and for providing means of developing Sir Oliver Lodge's inventions. The whole of the patents relating to wireless telegraphy taken out by Sir Oliver Lodge and my brother are controlled by the syndicate.

2347. What is the capital?—The nominal capital of the syndicate is £50,000, and of this £36,000 has been issued for the patents and for cash subscribed for developing the various inventions. I may add that that does not represent in the least the amount of money that we have expended. We have expended large sums out of our own pockets in addition to that.

2348. Who hold the shares?—Practically the whole of the shares are held by Sir Oliver Lodge and by Dr. Muirhead and myself.

2349. Have you any foreigners associated with your company?—Absolutely none. May I say that the principle of wireless telegraphy was in our view first demonstrated in England by Sir Oliver Lodge in the year 1894 in London, Oxford and Liverpool and other places. Sir Oliver Lodge, in the year 1894, transmitted signals by means of Hertzian waves for distances of, perhaps, two miles. Transmitting signals, in the language of ordinary telegraphy, is exactly the same thing as telegraphy. The ordinary telegraph transmits signals. In fact, in the preamble of Mr. Marconi's patent, he says that he claims improvement in transmitting electrical impulses and signals. Well, that is what Sir Oliver Lodge did. Whether you receive those signals on a galvanometer or on a Morse instrument, or in any other way, you receive signals. That is our point as regards that part of it. Then, Sir Oliver Lodge took out a patent in 1897 for syntonised wireless telegraphy. That is the first patent that was published in any kind of tuned wireless telegraphy. Now, to be quite precise, if I may be very particular, Mr. Marconi's patent was published on the 2nd July, 1897, and two months before that date Sir Oliver Lodge applied for his patent of 1897. Until Mr. Marconi's patent was published in July it was a secret document—it remained in the Patent Office. That was two months after Lodge applied for his patent. Therefore Sir Oliver Lodge could not know, and did not know, what was in Mr. Marconi's patent.

2350. Has the Lodge-Muirhead Company shown their system to the Government Departments?—Absolutely to all of them, many times, and many times before 1904, of course; dating back perhaps to 1900 or 1899. We showed the Post Office on many occasions. At first between Holyhead and Howth, where we showed tuning. That was at an early period. And we have also demonstrated various forms of wireless telegraphy, and the use of various instruments at various times. Our crucial experiment, I think, was the one that Sir Oliver Lodge referred to at Hythe, which is in the borough for which one honourable Member of this Committee is

Chairman—continued.

M. P. There, I think our experience was rather better than Sir Oliver Lodge put it, if I may go into details. The distance between Hythe and Dover is about 9½ miles. The Admiralty were represented at these demonstrations, and they instructed their station at Dover, which is a powerful station, and also their station at Felixstowe to signal all the time for an hour. Hythe, as Lieutenant Loring has told us, is situated quite in a nest of wireless work—right in the middle of it. At this moment that we are talking about, when this experiment was being conducted, the cross channel steamers between Newhaven and Dieppe were working, several boats in the channel also; some Admiralty boats were working; these two stations were specially working—and what we did there was this: While all this was going on we sent and received messages to Elmers End, which is a distance of 60 miles over hilly country. Sixty miles over land is a very much more difficult performance than a great many more miles on the sea; but that was quite successful. We used a very limited power, one-sixth of a horse power; and I think perhaps by this time the Committee know the value of the use of small powers in avoiding interference.

2351. You have no commercial stations on the South Coast?—No. I wish we had. We have applied over and over again to the Post Office to give us a commercial license. That is obviously the reason why we have not. We cannot go further than that. We never could have them. I am old enough to remember the telegraphs, before they were bought by the Government in 1870. The Act of 1870 gave the Government an absolute monopoly of all telegraphic work in this country. We could not have put up stations if we had wished to, without infringing that monopoly. At least, that is the view that we took. We applied to the Post Office in 1903, which was before the Wireless Telegraph Act 1904, to allow us to put up stations on the South Coast, for the purpose of communicating with ships. They gave us prevaricating answers, and we have never succeeded—we have over and over again applied, but with the same result.

Sir Gilbert Parker.

2352. Did you say the Post Office gave prevaricating answers?—Well, perhaps I ought not to have said that. But, in our view, the answers were not quite satisfactory to us. They said that they had not the power; and they said that the whole subject was being considered; and then they said that an Act was going to be brought in, and all the rest of it.

Chairman.

2353. Will you describe shortly the action of the Post Office to your Company?—Yes, if I may say so; of course we felt pretty sick at having spent a large sum of money, and at having been shut out. We cannot employ our system for the public service because we never could get this licence. Well, we do not think that is quite fair. At the same time, we want to be quite fair-minded. We know perfectly well that

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Chairman—continued.

that the purposes of defence are paramount—that the Admiralty must “rule the roost.” We feel as Englishmen that it must be so. But if I may venture an opinion, I think perhaps the Post Office might not have been indisposed to grant us licences at various times; but for the, I rather think, blocking power of the Admiralty. We heard the other day that the Post Office was too much for the Admiralty. As far as we are concerned, the Admiralty was too much for the Post Office. So that that is quits.

2354. That scores up accounts, does it?—I may be wrong, of course; I was only giving you my opinion. The Post Office, acting in conjunction with the Admiralty, have, however, vetoed every system of wireless telegraphy, except the Marconi system, on the south coast of England, or at any place near a naval base, and they thus not only bar competitors from any chance of working their inventions commercially, but even from erecting experimental stations which might in any way interfere with the working of the Marconi system. Our correspondence with the Post Office was commenced on the 3rd March, 1903.

2355. Is it necessary for you to give the Committee details of the correspondence?—I do not think it is. I could save time by stating it shortly. I do not wish to take up the time of the Committee more than is necessary. I may say, shortly, that we have applied many times for permission; that we have always been refused; that we feel very sick, because we are British subjects; that we have taken out inventions which are of very considerable importance; but we have not succeeded to this day in getting any commercial stations where we could recoup ourselves the large sum of money that we have spent. That is shortly what I should have said if I had read the whole of the correspondence.

2356. And then, as regards your correspondence with the Admiralty, have you anything to say as to that?—May I summarize that.

2357. Yes, please summarize it?—The Admiralty in our view unquestionably infringed Sir Oliver Lodge's 1897 patent. We wrote to them a very polite letter. We said, “We are quite sure that the British Admiralty would not willingly take another man's invention without compensating him for it.” Well, they acknowledged the letter, and then they seemed to half accept our view, for they asked us all sorts of details—as to how much we wanted and what the patents were for, what the numbers of the patents were, and all that sort of thing—whether we could put a value on the different ones, and so on. Well, we did not hear from them for another year. And we wrote again, and then they said they were inquiring into it, and, finally, after about two years and a half, they wrote and said they were advised that they did not infringe our patent. Then we said, “Well, will you allow us to test this in a court of law?” We were aware that British subjects cannot proceed against a Government Department without the consent of the Law Officers of the Crown: so we asked that we might have their consent. We rather treated the matter as a sort of friendly action, because we do not want anything that is not our due. On the other hand, we do not want people to utilise our

Chairman—continued.

inventions and not acknowledge them. Well, the Admiralty would not do it. They made all sorts of answers; and I have a very high opinion of the way the Admiralty conduct their business. I think they are very very smart; as a matter of fact, we did not get permission to do what we wished, to test the case in a Court of Law. And I suppose there there the matter must remain for the present.

2358. So that your contention is that, between the Post Office and the Admiralty the chances of establishing commercial stations have heretofore been rather remote?—We have been willing and anxious to work it to the public advantage and to our own. But we have not been able to get the necessary licence: hence we have not been able to do anything. We have done so abroad, and have succeeded.

2359. What success have you had abroad? Can you tell the Committee where you have established commercial stations and what they are doing in different parts of the world?—You must not press me too much in the matter of commercial stations, because there are not many commercial stations at all. Sir Oliver Lodge has touched on the Andaman Islands installation, to which I too have referred. We use only half a horse power there. If the Committee will allow I will put in the Blue Book issued by the Indian Government, which gives a lot of information about the traffic—thousands and thousands of words—for which they have had payment, and expressed themselves very well satisfied indeed with it. So much so, that in this Report they have said that “considering that the distance between these stations is 305 miles, and the power used was 36 volts and about 15 amperes, or a little over half a horse power, this result is a remarkable proof of the efficiency of the Lodge-Muirhead system.” I have already explained that we have done more than that. We did 580 miles to H.M.S. “Terrible.”

2360. The Andaman Islands station, which you are alluding to now, is that a commercial station?—Most certainly. The Government take all the work that is offered to it.

2361. Where else have you got stations?—We put up a station between Trinidad and Tobago for the Colonial Government, and that is at work for Government purposes—ships reported, and all the rest of it—I think we may fairly call that a commercial station. In this country, No, because we cannot get a licence.

2362. What distances are you sending messages from that station?—About 60 or 70 miles—not 20, as one of the witnesses said.

2363. Then your system has been used by the War Office, has it not?—Yes. As regards the War Office we have spent many thousands of pounds, and much time, in adapting wireless telegraphy to the uses of the War Office. The requirements of the War Office differ in some respects from any other. They require great portability; lightness; the apparatus not to be of more than a certain size—a certain efficiency with as low an aerial as possible, and a number of details which have to be worked out, and which we did work out at our own expense. It cost us a great deal of money; and the War Office

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Chairman—continued.

Office witness testified that of all systems that they have tried ours is the best. But it was at our expense.

2364. You have practically dealt now with all the different places where your system is established which you wish to bring before the Committee?—Well, no. With regard to commercial stations, the Midland Railway have an installation between Heysham and their cross-channel boats to Ireland. They have recently had a licence from the Post Office, and that is a commercial station. And we have a number of enquiries, and commercial stations are in process of being erected for different Governments and people. But I am afraid that we have not very many. I wish we had.

2365. Can you tell the Committee what patent rights your Company have?—We claim that Sir Oliver Lodge showed signals, as I have already said, in 1894. The first patent for tuning, and the first published patent is Sir Oliver Lodge's patent 11,575 of 1897. That is the master patent for tuning in this country.

2366. That was the one he dealt with?—That was the one he dealt with. We have got a lot of others. I have got a list here if I may put it in. There is a list of our English patents. I should like to add, if I might, that in America, recognising Sir Oliver Lodge's work, they have given him a master patent for the essentials of wireless telegraphy. He also has a master patent for tuning in America. I mention these facts because we hear a good deal about a decision in America in regard to the Marconi patents. Our patents were not quoted, and I do not think his interferes with us at all. As an example of the discomfort that one has in fighting patent actions, I may say I do not think that decision in America has prevented the other people from working. You see, you can have a patent for a special and particular combination and apparatus; and, if you work outside that, which you may legitimately do, perhaps the patent may not be so far-reaching as it would appear at first sight. Any way, these are technical questions, and they are very, very difficult.

2367. Can you mention the main points of difference between your patents and those of the Marconi Company?—Oh, absolutely. We claim that we have got a master patent for tuning. An untuned system will only go a short distance, and anybody can read the message with an untuned system within a certain range.

Mr. Arthur Lee

2368. Would you mind explaining what you mean by a master patent?—A master patent is this: that if a man invents something which is new, if he can claim the principles of this new invention, which have not been shown by anybody else, then as to a mere variation of detail, though it might enable another person to obtain a patent, still the first would be the master patent, because his was the first as to that particular subject-matter. I do not know whether I have made myself clear.

2369. Does the master patent give you any additional security?—The security of the patent

Mr. Arthur Lee—continued.

law is such that, until you fight a patent, it is not worth much.

2370. You said the United States Government had granted a master patent?—Yes.

2371. I do not know whether that gives you any additional security?—I should like to say that in America a master patent does undoubtedly give greater security. In America they do not give a patent to the first man who asks for it. They enquire, and they are very diligent. When it was pointed out to them that Sir Oliver Lodge had shown signals in 1894, they gave him a patent for the essentials of wireless telegraphy. It is true that another man may come along and say, I showed the use of the Morse key, or the Morse recorder, or a hundred other things; and they may give him a patent for it; but, then, it is for that particular combination. Do I make myself clear? In America, the security of a patentee is much greater than it is in this country. It is so in Germany, too. But, in England, until lately they gave a patent to anybody who asks for it.

Chairman.

2372. Have you any actions in respect of patents pending, or in process with the Marconi Company?—Unfortunately we have. I will tell you anything you like to ask me about it, but, of course, you will quite see, Sir, that when one is talking about patent actions one has to be careful. Perhaps you will ask me a question?

2373. I will merely ask you whether you have any actions pending or in process?—"Pending" is rather a wide word. "In process," yes.

2374. You have in process now?—Yes.

Sir Gilbert Parker.

2375. To return, for one moment, to Mr. Lee's question. Do I understand you that a master patent is supposed to be one which establishes, as it were, first principles in relation to a particular scientific question, as, for instance, wireless telegraphy?—If I may say so, questions relating to patents are exceedingly intricate, and the phrase "master patent" has not got any academic meaning. It is, however, generally understood among people who have to deal with patents, as a patent which covers all the essentials—not all the details, not all the possible ways—but it covers the matter, it covers all necessary apparatus and so on for arriving at the result that is sought to be accomplished. A man may paint his house door red, instead of green. You cannot patent that. The master patent would be for painting the door.

2376. Let me put it in another way. You secured, let us say, what you termed a master patent?—May I ask whether your question relates to England or to America, because the law is different.

2377. I will say in England. You secured what you termed a master patent, and I gathered from what you said that in that patent you registered the principle, before anybody else had registered such a principle, of wireless telegraphy?—Will you forgive me for saying that we registered the method of tuning—of syntonising, because you cannot, you must understand, patent

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Sir Gilbert Parker—continued.

patent a principle. You have to be so careful when you are talking about patents, if you will forgive me for saying so.

2378. I am not speaking in technical terms: I think you understand what I mean. I will say, then, that the method of wireless telegraphy which you patented may be supposed to have been the first method of syntonising?—Yes.

2379. Your method was the first to be registered?—Yes, absolutely, in this country.

2380. And, therefore, you consider yourselves to be the pioneers?—Most unquestionably. And moreover this patent was absolutely applied for before Marconi's was published at all. There were no patents published in England when Sir Oliver Lodge applied for his 1897 patent; so that we could not know anything that went before.

2381. Though you do not, of course, assert or suggest that Mr. Marconi infringed your patent, you believe yourselves to be the first who have put into practical operation the principles of wireless telegraphy?—Forgive me for saying that you are asking me very awkward questions. I will tell you anything that I can, but I will not define patent rights and things like that; because it is such a legal question that I may say something which I did not intend. I should not say so willingly; but I might give my whole case away if I had a law suit. I do not wish to prevaricate in any sense.

2382. I am only putting my questions upon what you yourself said at the beginning—that you registered your patent in 1897?—Yes.

2383. And that was two months before Mr. Marconi registered his patent?—Which had nothing whatever to do with tuning, may I say.

2384. I gathered that your suggestion was that you, at any rate, claimed a primary position?—Absolutely—in relation to tuning.

Chairman.

2385. Is the action that is taking place between you and the Marconi Company now, with regard to a patent in connection with tuning?—As to this action that we have taken against the Marconi Company, may I explain it shortly? I will not take two minutes: We spent a great deal of money, and the War Office were going to give us an order of a certain dimension, and "small fish are very sweet." And then they did not, and we wrote and asked them why they had not done it, and they wrote and said they had had a letter from the Marconi Company in which they had said that the system which the War Office had adopted infringed Mr. Marconi's patent. Then they sent it on to us, but they stopped the order—they did not give us the order, though we dissented from the view that it did infringe Mr. Marconi's patent, and, acting on advice, we asked the Marconi Company not to threaten our customers, and this is an action for threats, and to ask them not to threaten. But the law is very slow, very expensive, and very unsatisfactory.

Mr. Adkins.

2386. May I ask a question on this particular point before you get away from it. Could you

Mr. Adkins—continued.

tell us without inconvenience what is the practical effect in America of your possessing a master patent. I do not mean a case where other people have patented small details: I want to know what effect has the master patent in the United States of America?—Of course you will understand that I am not a lawyer; but I will tell you what is my point of view, as a layman. Generally speaking it brings the person who uses the invention, but with additional details, under the master patent.

2387. That is to say, he has either to secure the master patented article, or make arrangements with the holder of the master patent?—It brings him under the master patent. But then you have to fight for it: you have to go into the Courts.

2388. It does not in any question exclude all the melancholy aspects of a patent?—They are very melancholic.

Chairman.

2389. Now I pass on from the patent, and will ask you a question about operation. Is your system an easy one to operate?—I think we may say this, that it is the easiest to operate. And, as evidence of that, I may state that the Indian Government installation between the Andaman Islands and the mainland of Burmah was put up by the Indian Government telegraph officials. Our experts did not go there at all. And they work it themselves. We have never seen it. That rather points to the fact that it is easily installed and easily worked: and it has been very successful as this report will show.

2390. Does that involve a prolonged training on the part of the operators?—They must be properly trained, but it is not a long course.

2391. What period of training would be necessary?—For an operator to be absolutely expert you mean? If at the start you had a telegraphist—a man who had been operating, say, at the Post Office—well, they know a lot of things at the Post Office, and it would not take him very long. It might take him, perhaps, a fortnight. If, on the other hand, you took a man out of the street to train, he would have to learn his right hand from his left. I should say an ordinary expert telegraphist could learn our system efficiently, if he were a smart fellow, in two or three weeks.

2392. Have you established an organisation for training purposes?—At Elmers End we train lots of them. But, as I have said, our sphere of operations is so limited. We have operators, and we have sent them out to people. Does that answer your question?

Mr. Gwynn.

2393. As a Company have you an organisation?—The Lodge-Muirhead station at Elmers End is adjacent to the works of Messrs. Muirhead. There is a large staff of people there—experts of all descriptions, and it is easy for them to get any information they wish. As a matter of fact, they do go there and they learn how to signal and how to look after the apparatus.

2394. In

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[Continued.]

Chairman.

2394. In the stations that you have now established, have you experienced much interference from other companies?—We claim, you know, that our system is the best tuning system. We had a crucial demonstration of that at Hythe, where a host of people were signalling at the same time, and we could carry on messages between the two points and not be interfered with. If it interfered with them all I can say is that they had not an efficient system. If they had had our system it would not have been interfered with. The Admiralty say that when the Lodge-Muirhead station opens its mouth it shuts everybody else up.

Mr. Adkins.

2395. Who is the author of that epigram?—Some of the Admiralty people. You do not want me to be precise.

Chairman.

2396. Has your system been installed on ships to any large extent?—No, for the reason that we have no licence. We cannot communicate with the shore.

2397. Is it equally suitable for a ship-to-shore station?—Yes, absolutely—more efficient, because we use less power.

2398. Have you got any criticisms to make, from your point of view, on the Convention as it at present stands?—No. I do not see that you could better it.

2399. Are you anxious in your interests that the Convention should be ratified?—We always put the interests of our own country before our personal interests.

2400. I was leaving the more important interest to the last?—In the interests of the British Nation, all I can say is that I do not know why they have this Inquiry. It is obvious that it must be to the advantage of the British Empire, at least; when I say it is obvious, it is obvious to me.

2401. That is to say, it is necessary from the British point of view?—Yes, from my own point of view, there is no question.

2401A. From the point of view of British interests, is there any Article in the Convention which you would consider to be injurious?—No, on the contrary, I say, you must have some control of this description, and there is no reason in the world why it should not be efficiently managed—always excepting the fact that nobody wants to upset it, wilfully, I mean, and in bad faith. I do not think you could better the Articles of this Convention. I think they are very well thought-out; and I think, if I may say so, considering the preponderating amount of shipping that England has, it is much more to our advantage than to that of anybody else, that we should have regulations.

2402. Do you feel satisfied that the Regulations against interference and confusion can be enforced effectively?—I say that if all parties, directly or indirectly, work loyally, you cannot better that Convention. But if anybody wants to be a pirate, if anybody starts with hostile intentions, of course no Convention will help that.

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Mr. Sydney Buxton.

2403. I do not want to enter into any question between you and the Post Office, but I understand you to say that the upshot of it is that while you have a desire to have licences for South Coast stations, as a fact you have been unable to obtain them?—That is the fact.

2404. And that, therefore, the Marconi system, in competition with you has had an undoubted advantage?—Absolutely—and effectively. If I may say a word, they have got an absolute monopoly. They have been endowed by the British Government.

2405. But, apart from that; supposing it had been left as a free open question, and licences equally given to your Company as to the other, do you think you would have been able to hold your own in the Channel in wireless telegraphy?—Yes, and we say, with our system of tuning, we would not interfere with anybody, and that we should be able to work perfectly efficiently.

2406. But that is because other systems have not got, or imagine that they have not got, the same system of preventing interferences; that licences have been refused in the narrow channel?—It is invidious for me to speak about other systems. All I say is that ours is very efficient.

Mr. Gwynn.

2407. When did the refusal to grant you a licence date from?—From 1903.

2408. Was it necessary for you to have a licence before 1903?—Yes, it was. The Postmaster-General has a monopoly of all telegraphic communication in England.

Mr. Sydney Buxton.

2409. And your idea, I take it, from what you have said, is, with communication and with fair competition between the various companies, you would be able to initiate commercial stations which would compete with the Marconi system?—There is no question about it.

2410. And you, as a company I take it, have no objection to communicating?—No.

2411. And your view, I take it, from what you have said, is that the best system, from the national point of view, would be one in which the various systems would be free to compete under proper and efficient regulations?—If I might express my view, I think the Post Office ought to be paramount in this country, and they can quite well arrange, in fairness to all, that the various systems should have a chance. They have only got to adjust their apparatus, tune it properly, and to work amicably for that result to be attained.

2412. Then, from the international point of view, you think the Convention is satisfactory because it brings to bear the central authority and proper regulations?—I do not think you could do it without.

Mr. Arthur Lee.

2413. Sir Oliver Lodge gave us to understand that he thought it desirable that as many stations

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Mr. MUIRHEAD.

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Mr. Arthur Lee—continued.

stations as possible should be erected along the coast?—Yes.

2414. I presume you accept that?—We should agree to that, yes. You mean from a business point of view?

2415. Yes?—Yes.

2416. You also said just now that it was the opinion of the Admiralty that when the Lodge-Muirhead instruments opened their mouths everything else was stopped?—I was told that as a joke. What I wished to convey was this, that our radiating system is so powerful (because we do not use the earth) that it shuts the other people up.

2417. Would it be advisable, from the international standpoint of the general public, that there should be a large number of stations erected on a system which silences everybody else?—But then we should use but an infinitesimal power under those circumstances. Although we are able to shut other people up, under Regulations, we should only use the minimum of power which was absolutely necessary. In fact, the Convention provides for that.

2418. Would it be possible for you, under those circumstances, to establish certain communication with ships, for example, fitted with other systems that were not so sensitive and not so well tuned in your opinion?—Take a concrete case. With one-half horse power we communicated 580 miles to H.M.S. "Terrible," which had a Marconi system on it; and the Indian Government officials had to tell them how to adjust their tuning apparatus so that they could receive it. Our system is more efficient. That is our view.

2419. I understood you to say that, on the one hand, the amount of energy that you radiate, owing to the absence of an earth connection, is so great that it silences everything else, and, on the other hand, you tell me that you use so little power, as shown by this "Terrible" experiment, but you do not interfere?—If I may say so, it is a mere question of adjusting the power to the necessities of the case.

2420. Does not your argument rather tend to show that, if you had a monopoly, the results would be admirable, because the highest system of tuning, as you believe it is in question, but that, in the absence of that monopoly, the multiplication of your systems would tend to make general disturbance?—Forgive me. If I have conveyed that impression, I am wrong. What I meant to convey was, that our system of tuning is so efficient for low powers that we could have a number of stations side by side and working efficiently when we are told other people could not do the same. Let me give you an example. Several witnesses in this room have said that, in order that you should carry on efficient work, you should have stations about 50 miles apart. Well, we have given a crucial demonstration, not to a private person, but to the representative of the Admiralty—the Post Office at Hythe. We have demonstrated that we can, with very small power, work when these other people are working outside. That is a very good example of what we can do.

Mr. Adkins.

2421. You have said that you think it would be an advantage from the point of view of British interests, for this Convention to be ratified?—I said so, yes.

2422. And all the more, because of the preponderance of shipping under the British flag?—Undoubtedly.

2423. Why does our preponderance in shipping make it the more desirable for us to enter into these arrangements?—I can conceive circumstances where, if we did not enter into some International arrangements, the other countries would prevent our working wireless telegraphy. They might not do so intentionally. But one has to be large-hearted and consider the world as a whole. Other people are not going to stand by because we act as a dog-in-the-manger, if I may say so. Suppose we do not ratify this Convention, the great Powers of Europe have been at great trouble and expended a long time in discussing this—they would feel very sore indeed if we did not ratify it. I say they would then have to use their own system of wireless telegraphy, and that would upset our working all over the world. They would not be mealy mouthed about the thing, they would seek to beat us. They would say, "Very well then, if you cannot come in with the rest of us we will see that your wireless is not worth much."

Mr. Gwynn.

2424. Where would they do this?—I cannot tell you where they would do it, but they could do it.

2425. Could they do it, for instance, in the Channel?—Undoubtedly they could.

2426. In the first place, would it not be necessary for them to use in that case more power than is specified under the Convention?—Oh, dear no. I think we could do a lot of damage for about 200 miles with one-third of a horse-power.

Mr. Adkins.

2427. While they were disturbing British connections in the Channel, would not they be, to a certain extent, disturbing other wireless communications of the Powers that were signatories to the Convention?—They might and they might not. I can conceive circumstances in which they could make themselves very disagreeable and yet not hurt themselves much.

2428. I suppose it would not be patriotic to ask you what those circumstances would be?—Well, I do not hold myself out to be an exceptional patriot. But what I should do, if I were on board and a man made himself disagreeable to me would be this: I would put up two installations, one under the Convention and the other not.

2429. That, you think, is practically possible?—Absolutely possible.

2430. The particular question I was asking you was whether you thought that the preponderance of our shipping made it the more desirable

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Mr. MUIRHEAD.

[Continued.]

Mr. Adkins—continued.

desirable that we should be parties to the International Convention?—Undoubtedly, because we have more to lose by chaos than any other country.

2431. But, supposing that we had a system which combined the excellencies of your system and of the Marconi system, and the advantages of the Marconi stations and your power of shutting other people up?—I am afraid I was rather loose in my expression.

2432. I am grateful to you for the picturesqueness of it. But supposing we had a system which combined the advantages of the Marconi system and the advantages of yours, and they were in the possession of Great Britain, and were used on her preponderating shipping, in your judgment would the other countries, if they held together, be able to cause confusion?—In my judgment the other countries would be able to cause confusion. The Great Powers have to look after their own interests, and it is a certainty, in my opinion, that confusion would arise.

2433. Supposing we had your Company and Marconi's, and anything else, you do not consider that England is in a position to defy the rest of the world in consequence of her having so great a preponderance of shipping, and a great advantage of geographical position?—You cannot do it.

Sir William Holland.

2434. Do you think that if the Convention were not ratified, the result, as some of the other witnesses have said, would be a wireless war?—Absolutely.

2435. In a wireless war you would fare rather well, would not you, if you are able to shut everybody else up?—That is our view; we should have a good try at it.

Mr. Gwynn.

2436. You would admit that upon the question of an invention the public has to consider first of all the priority of the invention and then the question of priority of application?—In what sense do you mean that the public have to consider it?

2437. Your claim, as I understand it, is that you hold the master patent in this matter?—For tuning.

2438. But that Marconi holds by a question of priority, I presume, the master patent, for the principle of wireless telegraphy?—Do you want me to answer that question?

2439. I think so; yes?—I think the Postmaster-General has said that his legal advice was to the contrary, as a matter of fact.

2440. But in any case the patents were taken out in 1897?—Which patent?

2441. Your patent and Marconi's patent—both?—Marconi's patent was applied for in 1896.

2442. It was received in 1897?—It was received in 1897.

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Mr. Gwynn—continued.

2443-4. You said just now that the Marconi Company had been virtually given a monopoly or an advantage, from which you had suffered?—Yes, absolutely.

2445. What was there in the circumstances of the case in 1897 which favoured the Marconi Company?—I am afraid I do not quite understand your question. Do you mean with regard to the agreements?

2446. At what point did the Government make a concession to the Marconi Company which gave them a position of advantage?—I will tell you. The whole of the proceedings with regard to the Wireless Telegraph Act in our view were very unfair.

2447. What is the Wireless Telegraph Act?—15th August, 1904, I think.

2448. Did not you say that there was no wireless telegraph station established before 1904?—No: we had our own.

2449. Would you allow that before 1904 the Marconi Company existed as an organisation?—What do you mean by "an organisation?"—By the way I may say that we are not here to slang the Marconi Company. I think the Marconi Company have been most assiduous. They have devoted a large amount of time, they have spent their money freely we have been told, and I was aghast at the sum: well all that is I think, to their credit. But that does not cover the whole ground.

2450. That is not quite the point I want to show, if I can, that you have overstated the advantages which the Marconi Company received from the Government?—I have understated it.

2451. In the year 1897, it was, was it not, permissible for anybody to erect stations along the coast of Great Britain for carrying on wireless telegraphy with vessels at sea?—Absolutely no. The monopoly of the Postmaster-General prevented it, or should have prevented it. In the year 1870, under the Telegraph Acts, the Postmaster-General had an absolute monopoly of all communication by electrical means.

2452. Including telegraphy to ships at sea?—All kinds of telegraphy—wireless, telephone, and all the rest of it. That question was fought out in the telephone case—a law suit—where the telephone was held to be a means of electrical communication, and therefore, under the Postmaster-General's monopoly.

2453. And therefore, you would say that a licence was necessary for the erection of any station for wireless telegraphy?—Yes, or we should not have written our first letter—which was before 1904—1903 was our first letter.

2454. I must have misapprehended, then, the facts in that case. But, at all events in 1897, your inventions were patented practically at the same time as the Marconi Company's?—They were applied for before the Marconi patent was published, which is a very important point.

2455. Did you make any attempt as a company to establish a proper organisation for the conduct of the public business of telegraphy?—When do you mean?

Y 2

2456. In

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[Continued.]

Mr. Gwynn—continued.

2456. In, say 1897 or 1898?—No, we did not; nor did the Marconi Company.

2457. At what time did the Marconi Company begin to organise themselves for the purpose?—I should prefer you should ask them. I do not know. But, after all, I think Mr. Hall said he came to them in 1901 and organised the operations on a commercial basis. I think that was his testimony.

2458. I do not think that is correct?—I may be wrong. I do not know what they did.

2459. Would you admit that they succeeded in establishing themselves as an organisation for conducting the public business of commercial telegraphy?—I do not think I would, because I should want a definition of what you mean by establishing themselves as an organisation. We are an organisation, and have been since 1900 and 1901.

2460. Have you any stations under the control of your own company, carried on at the instance of your company, open for public business?—No, for the simple reason that all those we have supplied machinery to have preferred to put up their own installations, and we could not do it in England because we could not get a licence. We should do it to-morrow if we could get a licence.

2461. You have, as a matter of fact, no stations under your control as a company?—No, I am afraid we have not.

2462. The Marconi Company, as a matter of fact, you will admit, have such stations?—Yes, owing to the monopoly which the British Government have endowed them with.

2463. The Marconi Company have also, as you will admit, some stations under their control in countries other than Great Britain?—I do not wish to belittle the Marconi Company, but you are asking me questions as to matters of fact which I do not know of my own knowledge.

2464. You questioned just now whether the Marconi Company did or did not exist as a commercial organisation?—Not before a certain date. I think I said that Mr. Hall in his evidence had stated (which I think you took exception to) that they commenced when he arrived on the scene, which I believe was in 1901, when he formed this great organisation which is greatly to his credit. I think it was a very great thing to do.

2465. And you would say that the condition of success of that organisation was the concession which he received from the Government?—I say that the whole position of the Marconi Company at the present moment has been due to the endowment from the British Government. And let me prove it. When Mr. Marconi came to this country he went to the Post Office with a letter of introduction. The Post Office authorities were exceedingly expert—there is very little they do not know about telegraphy—wireless, or otherwise, and they put the whole of their establishment at his service. They spent thousands of pounds of public money, and in the result the Marconi system was what it was when he left the Post Office. Well, we had not that advantage. And, subsequently to that, these agreements which the Admiralty and the Post Office have

Mr. Gwynn—continued.

made with the Marconi Company, absolutely endowed the Marconi Company with a monopoly, which is a very valuable thing. We, as Englishmen, were put off and put out.

2466. Why do you suggest that the Post Office chose to experiment with the Marconi Company rather than with yours?—Because the Post Office are always in the forefront and know of new inventions.

2467. That is to say, the Marconi came first; that is the proposition?—No, I do not admit that at all. But they took him up for that reason—that they would take up anybody that comes along with proper credentials—that is with anything new to shew them.

2468. But would you say that you had submitted your method of wireless telegraphy, as a working plan, to the Post Office before they entered into their series of experiments with Mr. Marconi?—I do not think you wish to put that into my mouth, do you? I did not say anything of the sort.

2469. I have been trying to ascertain from you why you suggest that the Post Office experimented at the public expense with the Marconi invention?—I think it is a matter of common knowledge.

2470. Was your invention before the Post Office at the time when they chose to experiment with Marconi?—I would rather you asked the Post Office. They knew of such a lot of things that I presume they knew Sir Oliver Lodge's.

2471. Had you, or had Sir Oliver Lodge, submitted it to them as a concrete proposal?—No, I do not suppose he had.

2472. I suggest the reason why they chose to experiment with Marconi's invention was that Mr. Marconi came to them and asked them to do so?—Forgive me if I am wrong, but Mr. Marconi brought to them a secret box, and that only. That contained, as we believe, a new form of coherer, which, at that time, was supposed to be more sensitive than anything else. It was not an invention of the greatest importance. The result was, as we believe, a development of his system of wireless telegraphy, largely aided by the Post Office. In fact, the Post Office is so smart that I think they had a good deal to do with it.

2473. The invention, you say, is largely due to the Post Office, and not merely to Mr. Marconi?—I do not wish to be disagreeable to Mr. Marconi; but that view has been expressed. But let me be quite frank—I think it was.

2474. Can you tell me what is the magnetic detector?—The magnetic detector is a very good instrument indeed for receiving wireless signals.

2475. Is that an invention of Mr. Marconi's?—It is an improvement, we believe, on the work of Professor Rutherford. I think, however, if you do not mind, I would rather not talk about Mr. Marconi's work. I think it is a very efficient instrument. I am told it is.

2476. Is there a patent held for it?—Off-hand I cannot answer that question.

2477. You do not employ the magnetic detector?—No; we have got a much better thing than that.

2478. Could

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[Continued.]

Mr. Gwynn—continued.

2478. Could Sir Oliver Lodge have transmitted signals for a distance greater than two miles by the method which he used at his demonstrations in 1896 or 1897?—Certainly. It is merely a question of power.

2479. There is another question of organisation. You said that, given your highly developed system, with its power of complete tuning, it was possible to select messages almost to an unlimited extent?—Very close indeed.

2480. Sir Oliver Lodge, when he was making his explanation to us just now, told us that, given four stations—A, B and C, D, in two pairs—A and B say seven miles apart, and C and D seven miles apart, A distant 60 miles from C, and D distant 60 miles from B, it was easy to communicate simultaneously between A and C and B and D, and you say that your system is so complete that confusion is practically impossible?—We say there would be no confusion under the circumstances that we have described.

2481. But Sir Oliver Lodge said that communication was only possible if the messages were going in the same direction—if it was *diplex* communication and not *duplex*?—*Diplex* communication is when you send two messages in that direction at the same time: *duplex* is two messages in the reverse direction. That is the distinction between *diplex* and *duplex*. The answer to that question, if I understand it, is this, and I want to be accurate—that if you have a suitable wave length, and suitable power and suitable apparatus, what you say is perfectly possible—that you could communicate between these two.

2482. You can have *diplex* communication?—Yes, you can work *diplex* at the same time.

2483. My point was that it seemed to me, on what Sir Oliver Lodge told us, that it was impossible to avoid confusion unless you had a central control to see that the sending of the messages were in the same direction?—Do you pin me down to the seven miles? You have mentioned the figure seven. Seven is very close. Well, I do not know that it is particularly close. It is merely a question of the adjustability of the different wave lengths and the apparatus. If Sir Oliver Lodge said so, who am I that I should say differently?

Sir Gilbert Parker.

2484. May I ask what reasons the Post Office gave you for not granting you commercial licences, otherwise than an agreement with Marconi?—The main reason they gave was on account of interference with other installations, and we say that if you had as efficient a system of tuning as we have that would not hold.

2485. But the Marconi agreement was in existence at that time, by which they were bound, were they not?—Worse luck for us.

2486. You said, I think, in answer to one of the honourable Members, that you with your system so tremendously powerful might be able to create a wireless war within our own British district?—Yes.

2487. You would not anticipate, of course, yourself, any such action?—Far be it from us. I am only talking about the possibility; but

Sir Gilbert Parker—continued.

when one thinks of foreign nations they will not be mealy mouthed.

2488. But you had preceded that by the remark that a wireless war would be almost certain?—Almost a certainty.

2489. That is to say, you wish now to limit that wireless war so far as the actual probability is concerned, to foreign nations; that is to say, you would wish to exclude yourself or your company from any intention of producing a wireless war?—We should not like to play that game, and we should not be allowed; because the Post Office would not permit it. Of course, if you apply that argument to foreign Governments they are not bound by the Post Office licence. They can do as they like.

2490. In the Convention, as it stands, boycotting is, of course, absolutely prevented, is it not?—That is one of the intentions of the Convention, I think.

2491. It is defined, is it not, in the Convention?—Yes.

2492. In that case the Powers would have to deliberately modify the present Convention as it stands, and enter upon what would be a deliberate wireless war upon England?—Supposing we did not ratify it.

2493. That is, if we stood out?—Yes.

2494. I began by speaking of the boycott. I say that in order to produce a wireless war the Signatories to the Convention would either have to break the Convention as it stands, or deliberately, as a Congress of Nations, alter the Convention in order for them to be able to prosecute a wireless war?—There is a great deal of force in what you say; but I think they would be able, practically, to do it. I do not think they could help it. Because if we did not adhere to this Convention, and stood out, I should say, if we are going into the Congress of Great Powers, then, after getting a whole lot of things altered, and a great deal to our advantage, it would be rather bad taste for us not to ratify it. In fact I do not know why we should take up that position. Then you put the further point to me, if those other Powers were to ratify this, and we stood out, whether they would start a wireless war. I am afraid I think they would. I do not think you ask me how they would do it, do you?

2494A. Yes, I do. I am taking the basis of the Convention. A great deal has been said in the Committee as to the certainty of a wireless war being produced. Now, as I understand it, it can only be produced in two ways. In the first place, by breaking the Convention individually, which they are bound not to do under the Convention?—Quite so.

2495. Or without modifying the Convention, they must deliberately break the Convention through the ships belonging to their nations?—Yes.

2496. Now it is just as well that we should understand the point of view of witnesses with regard to that, because a great deal of significance has been attached to this point of a wireless war?—Yes.

2497. I only wanted to establish that fact if possible by your evidence. In order to secure that wireless war, one of those two things must be done: you agree to that?—I daresay when I leave

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I leave this room, I shall find out an excellent way of doing it. But I do not see how, except in the way you pointed out just now it would be possible to do it. What they would do practically would be to alter the Convention.

2498. Of course you would recognise the consequences of that, do you not? That is to say it would be, in a sense, a number of foreign nations entering into a league against us?—I am afraid so.

2499. Making an alliance against us?—With our ships so preponderating we have much more to gain by keeping the peace than the other people.

Chairman.

2500. In what way would it be necessary to break the Convention in order to interfere with Great Britain, if Great Britain has refused to ratify and is standing out of the Convention?—Do you mean how would they have to set about it?

2501. In what way would it be necessary for them to break the Convention?—Would not they be perfectly able to interfere with Great Britain within the four corners of the Convention, if Great Britain is outside the Convention, and has not ratified?—Yes, I daresay they would. I think the Great Powers have something else to do than to try and annoy us by making a league.

2502. You are not able to answer the point specifically about the Convention?—I think we could do it.

2503. You are not prepared to give a different answer?—No, I put it on the broad ground that it is so manifestly to our advantage to ratify the Convention.

Sir Gilbert Parker.

2504. There is another question arising out of your answer to the previous question. I think you suggested that we should have the most to lose, because, in effect, we have a preponderance of shipping. Suppose, as I think is the case, we have something like 48 per cent. of the shipping of the world; I suppose then the ships of our mercantile navy, communicating, say, with the Marconi system (which is the system accepted now by this Government), would be greater in number than the ships of any foreign nation communicating with the station of any foreign nation?—If they all used the Marconi apparatus, which they do not, of course.

2505. I do not think you quite apprehend the question. Our shipping is in last preponderance, and supposing that the Post Office ratified its agreement with the Marconi system, there would be far more ships, because of our mercantile preponderance, and our command, practically, of the Channel, and far more ships communicating with our shore stations here than there would be of foreign ships communicating with foreign stations or the coast of France?—It must follow from the premises. If there are more ships, and they are all fitted with the Marconi apparatus, there must be more communication.

2506. Then the injury would not be so much

Sir Gilbert Parker—continued.

to the convenience of the public as it would be to what you would regard as the practical suppression of other systems than the Marconi system?—No; but what I think would happen would be this—that other nations would make it impossible for our 48 per cent. to work by wireless telegraphy. They would be so upset by our refusing to ratify that they would make it impossible. They would do it in a number of ways.

2507. Mr. Gwynn has put it that it means a deliberate attack, as it were, by interfering with messages being sent from British ship to British shore?—Take the German boats, for instance. I can imagine—I do not say they would do it, because I have a better opinion of them; but they might rig out a ship to go up and down the Channel with a very powerful wireless transmitting apparatus which would disturb all shipping in the Channel.

Mr. Gwynn.

2508. You mean impartially?—Impartially.

2509. And all stations impartially?—They could tune to their own if they liked. But you would have to keep on altering your tuning over and over again.

Chairman.

2510. And they could do that without breaking their obligations under the Convention in any way?—Yes; they could do that most undoubtedly.

2511. They have not to undertake to prevent interference with any Powers outside the Convention?—Quite so.

Mr. Gwynn.

2512. Is it possible for a ship to go up and down the Channel—to interfere with British stations—and not to interfere at the same time with stations on the French coast and on the Belgian coast?—It would depend entirely on what the wave length was, and the tuning and so on. This is really a hypothetical case. But it is possible, yes.

2513. The whole case is hypothetical. What we want to arrive at is whether a wireless war is possible to be carried out by nations accepting the Convention?—Yes.

2514. You assert that a ship could go out with the express intention of disturbing stations on the British territory, and the Channel?—Yes, it could do that.

2515. And yet not absolutely disturb stations in French territory or Belgian territory, or shipping belonging to nations of the Contracting Powers in the Channel?—It would upset them. But they have not anything like the amount to lose that we have.

2516. That is another point. If it upset them, would it not be violating the Convention?—It is possible, I think, that you could drive a coach and four through that Convention, if you wished to do it.

2517. That is to say, if you had the consent of the parties to the Convention to set aside their own convenience, in order to inflict inconvenience on Great Britain, you might conduct your wireless war?—I think so.

2518. Without

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[Continued.]

Mr. Gwynn—continued.

2518. Without that consent, you could not conduct your wireless war?—I think you could.

2519. But you have not given us the means?—It must be a question of how to do it. We shall have to ask Sir Oliver Lodge to sit down and try to find out how to do it. We could do it, I think.

Sir Gilbert Parker.

2520. You would scarcely approve of doing it?—No, it is awfully bad taste. I think it is far better to try and get on well with your

Sir Gilbert Parker—continued.

neighbours than badly. You may have to fight.

2521. There would be an element of danger attaching to any disturbance of what might be called the commercial convenience of this country?—Yes.

2522. You would naturally assume that any country which would deliberately interfere with the commercial convenience of this country would be placed in rather a difficult position?—Yes. (*Vide* also Memoranda by Sir Oliver Lodge—Appendix No. 8.)

Thursday, 25th April 1907.

MEMBERS PRESENT:

Mr. Sydney Buxton.
Sir John Dickson-Poynder
Mr. Gwynn.
Sir William Holland.

Mr. Arthur Lee.
Mr. Macpherson.
Sir Edward Sassoon.

Sir JOHN DICKSON-POYNDER, BART., IN THE CHAIR.

Mr. NEVIL MASKELYNE, F.R.A.S., called in; and Examined.

Chairman.

2523. You are the Technical Adviser to the Amalgamated Radiotelegraph Company, Limited?—Yes, Sir, of which Lord Armstrong is Chairman.

2524. Are you not also connected with the Poulsen Company's system?—The Poulsen system also, which is amalgamated with others in the Company.

2525. Embraced in that Company?—It is one of the systems the Amalgamated Radiotelegraph Company has acquired.

Mr. Arthur Lee.

2526. Do you mean the British rights?—No, the rights of the whole world except the American.

Chairman.

2527. What was the reason for the formation of the Company?—Well, it was formed in order to take over the interests of the De Forest Wireless Telegraph Syndicate, and to amalgamate with those interests other more recently acquired interests, such as the Poulsen.

2528. Can you give us the financial status of the Company?—The Company has a share capital of £500,000 partly subscribed. No public money is invested in the undertaking. All necessary funds have been, and are still being, supplied from private and substantial sources as and when required. Such sums, however, are very considerable. British capital alone is involved.

2529. Are there only British representatives on the Board, or are foreign countries represented also?—There are only British and Danish; the Danish members represent the Poulsen interest; the rest are British.

2530. Can you give the Committee an account of the contracts that have been completed with Government Departments in Great Britain and foreign countries?—Well, the Company has already completed contracts with Government Departments in Great Britain, India, Germany, and Russia; with the United Shipping Company for four Trans-Atlantic Liners; and with Messrs.

Chairman—continued.

Blumenfeld Brothers; and in addition to these installations, owns five stations in this country and three in Denmark. Among the whole of the foregoing, only two stations—those supplied to the General Post Office for Hunstanton and Skegness—have a range nominally less than 100 miles. Fourteen of the stations have a range of 200 miles and upwards. Eight have a range of 500 miles, and one has a proved range of over 800 miles.

Mr. Arthur Lee.

2531. May I ask: Are you referring to Poulsen's stations?—Oh no, not necessarily; some of them are De Forest, and one or two of them are Poulsen, but they are not entirely Poulsen.

Chairman.

2532. Are we to understand that the stations on the De Forest system and the Poulsen system are all under the title of the Amalgamated Radiotelegraph Company?—That is so. We probably should not be allowed to say how many are included in each contract.

Mr. Gwynn.

2533. Your later figures include an unascertained quantity?—Precisely; but we have proved up to 800 miles, those being the stations furthest apart available at the present moment.

Mr. Sydney Buxton.

2534. Both systems?—No, only the Poulsen system. The De Forest system would require far greater energy than we should be allowed to use at either of those stations.

Chairman.

2535. Do you anticipate completing contracts elsewhere in the immediate future?—Yes, Sir. The company has also in course of negotiation contracts with the Governments of Great Britain, India, Cape Colony, West Indies, West Africa, Egypt, Norway, Sweden, Austria, Denmark, Italy,

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Mr. MASKELYNE, F.R.A.S.

[Continued.]

Chairman—continued.

Italy, Russia, Turkey, China, Manchuria and Borneo; also with various authorities and private firms for stations in Central America, Faroe Islands, Christmas Island, Fiji, Ocean and Pleasant Islands, and in positions not specified. Further, there are numerous ship installations of various kinds, tenders for which are under consideration. In all, the number of such contracts will amount to between 60 and 70. In many cases the acceptance of these contracts is held in abeyance pending the ratification of the Convention.

Mr. Arthur Lee.

2536. Did I understand you to say that you were hoping to conclude contracts with these different countries, or that contracts are actually under negotiation?—They are actually under negotiation.

Chairman.

2537. Would these be chiefly with the Poulsen system or with the De Forest system?—That depends very largely upon the question of the ratification of this Convention. If the Convention be ratified we are bound to intercommunicate with other systems, as of course would be the case. Then we must have not only the Poulsen system, but also the De Forest or some other spark system in order to communicate with all other companies using a spark system. We should have to communicate with the spark system as well as with the Poulsen—the arc system. The technical importance of the Company's operations has been officially recognised, both at home and abroad, and I have been informed that various Articles of the Convention were modified, especially in view of the Company's most recent improvements in radiotelegraphy.

2538. Which Articles do you specially allude to?—One is the Article which alludes to the exemption of certain specific stations for limited communication; I cannot give the number of it just at the moment, but I believe it is the one that refers to the exempted stations. It is Article 4: "Notwithstanding the provisions of Article 3, a station may be appropriated to a service of public correspondence of a restricted character, determined by the object of the correspondence, or by other circumstances independent of the system employed."

Sir Edward Sassoon.

2539. Would you say in what way it has been recognised by the Home Government?—The Home Government has been in communication with our Company considerably.

2540. You have no contract with any public Departments, have you?—We have contracts with the Admiralty at present under consideration.

2541. Under consideration?—And we have supplied apparatus to the Post Office.

2542. You are supplying?—We have supplied.

Chairman.

2543. The Article you have just alluded to would apply favourably and in particular to your system?—Yes; I understood at Berlin at the 0.6.

Chairman—continued.

time from various delegates that they had specially in view the Poulsen system in framing that Article, also Articles 7 and 14.

2544. Then as regards the expert staff of your Company, can you give us any idea of what that is?—The experts employed by the Company are of various nationalities, and include some of the most able men and most distinguished workers in the field of radiotelegraphy; that is to say, wherever we have been able to obtain good experts we have always obtained them, and we have a very large number of them.

2545. You have established a training school, have you?—We have established laboratories at Berlin and Copenhagen, and we have also here laboratories connected with our stations.

2546. Do you pass all your operators through those laboratories?—At present all our operators have to pass through our establishments at Oxford and Cambridge.

2547. For a strict training?—They were put up especially for that purpose.

2548. Your experts, you say, are of various nationalities?—Of various nationalities; it is highly essential that they shall be, because of course we shall have to deal with this in all parts of the world and in all sorts of languages.

2549. How many patents are controlled by the Company?—The patents actually in force are 194 in number. Of these, 61 are British and Colonial and 133 are foreign. In addition there are some 30 patent applications still awaiting acceptance. Thus, the total number is 224. These include the most recent advancements and most improved methods connected with radiotelegraphy. The names of the various patentees, given alphabetically, are De Forest, Ducretet, Ehret, Gehring, Maskelyne, Pedersen, Poulsen, Rosenthal, Schiller, Seibt, Sharman, and Shoemaker. In order that the recent improvements contained in the Company's patents may be properly understood, I should like to state very briefly the salient points in which various radiotelegraphic systems mutually differ.

2550. Will you give first the headings to those points, and then take those points categorically?—Well, the existing systems may differ in four radical particulars:—Firstly, in the manner of producing Hertzian waves; secondly, in the characteristics of the waves produced; thirdly, in the method of detecting the transmitted waves; and fourthly, in the perfection of "tuning" or "syntony," and consequently the selective capabilities of the system.

2551. Now will you deal first with the different methods of producing Hertzian waves?—In practice there are only two essentially different methods. In the older method the waves are intermittent, their energy being derived from successive discharges of electric sparks. In the newer method the waves suffer no interruption. Their supply of energy is derived from a constant electric arc similar to that of the ordinary arc lamp used for lighting purposes.

2552. Is this latter method considered an improvement upon the former?—Undoubtedly so. That will be dealt with of course when we come to the question of the tuning.

2553. Is that the system in practice in the
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Chairman—continued.

Marconi Company?—No, Sir; that is particularly characteristic of the Poulsen system.

2554. Then you get to Number 2—the characteristic differences between waves respectively produced by these two methods?—Well, the essential differences characterising the two kinds of waves may be readily understood. In the older method, known as “spark telegraphy,” each train of waves is derived from the energy contained in an isolated electrical discharge. Therefore, that energy is reduced more and more as the successive waves are given off. The first wave is very powerful; the second is weaker, owing to the amount of energy absorbed by the first wave; the third is weaker still, and thus the waves die away. In the newer method of “arc telegraphy” there is no such dying away of the waves. The energy sent out with each wave is immediately replaced by the continuous current supplied to the arc. The basic Poulsen patents controlling this newer system are owned by the Amalgamated Radiotelegraph Company.

2555. Then what are the essentially different methods of detecting Hertzian waves?—In practice there are two fundamental methods of receiving telegraphic signals, either wirelessly or by wire. These are, respectively, the “direct” method, and the “relay” method. In the former, the actual energy sent out by the transmitting station operates the recording instrument at the receiving end. In the second method, the transmitted energy does not record the signals. It is not powerful enough to do so. It merely controls a local supply of energy at the receiving station. That local energy records the actual signals. This is sometimes called the “trigger principle.” The energy transmitted will not suffice, as it were, to propel the shot from the gun. It is only capable of pulling the trigger. That is the idea. In the older spark telegraphy, the receiving instruments invariably act upon some form of trigger principle. In the newer arc telegraphy, the received signals may be recorded, directly, by the actual energy transmitted. This latter fact alone serves to show the superior efficiency of the newer system of radiotelegraphy; you get sufficient power actually to record the signals instead of merely releasing the power and then again recording.

Sir Edward Sassoon.

2556. Is that a universal patent?—That principle is applicable both to the radio-telegraph and the wire; it is used on the telegraph wire, so it is not a new principle; all that is new in the Poulsen patent in that way consists in the production of waves which are capable of working directly.

2557. And as regards radiotelegraphy they have the universal patent?—Yes, Sir, they have.

Chairman.

2558. Then No. 4—the “means employed for tuned or selective signalling?”—No matter what system of radiotelegraphy be employed, there is only one method, at present, whereby signals from one station can be transmitted to another

Chairman—continued.

station, without affecting a third station within range. From its analogy to acoustic principles, this method is described as “tuning.” The process has been shrouded in much unwarrantable mystery; but it is perfectly simple, and perfectly understood by all experts throughout the world. It depends primarily, upon the use of transmitting and receiving electrical circuits which have a similar rate of oscillation. That is to say, in each circuit a current of electricity passing to and fro along the wire contained in that circuit will occupy a certain definite fraction of a second in making each successive journey. Each swing of the transmitter-current tends to set up a similar swing in the receiving circuit. If the two circuits are in tune, the transmitted waves will continually assist and amplify the oscillations set up in the receiver. If not, the two circuits soon become at cross purposes, and instead of amplifying the action of the receiver, the transmitted waves act in opposition to it. Thus, when two stations are “out of tune,” the receiver cannot accumulate energy from the successive waves radiated by the transmitter. There is no secret whatever in it.

2559. What are the possibilities and limitations of tuning?—The possibilities of tuning are well understood, and its limitations are clearly defined. There is no mystery whatever in such matters. The transmitter must give out a definite number of electrical oscillations per second. Each single oscillation must be too weak to affect any receiving instrument within range. The receiver must include an electrical circuit having a definite rate of oscillation. It must not be sensitive enough to respond to a single impulse from any transmitter within range. The transmitter must give out oscillations all of which are as nearly as possible equal in intensity. The receiver must integrate as many impulses as possible before responding to the action of the transmitter. The more insensitive the receiver, and the weaker the individual waves radiated by the transmitter, the more perfect will be the selective action of the system employed. The selectivity and secrecy derivable from tuning, however, must necessarily be subject to certain definite limitations. When stations are so near together that one single impulse from the transmitter at either station will affect the receiver at the other station, tuning is incapable of providing selectivity or of preventing interference, and however accurate may be the means of tuning, there is no possibility of preventing the reception by any station within range of messages transmitted by the apparatus employed in any system whatever.

2560. Can you tell us the reasons for the superiority of the continuous wave system?—The superiority of the continuous wave method is due to the facts already indicated. In the first place, the waves are all of equal intensity, and thus we avoid the defects due to the necessity of building up an increasing store of received energy by means of constantly failing waves. Secondly, each individual wave is too weak to affect a receiving station, even at a short distance

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tance, and thus there is great freedom from interference. At the same time, the tuning is very accurate, because only by means of sharp tuning can a sufficient amount of energy be accumulated at the receiving station. Thirdly, the receiving apparatus may be very insensitive, because the continuous nature of the waves will allow ample energy to be accumulated for overcoming that insensitiveness.

Mr. Arthur Lee.

2561. May I ask again, does this apply to the De Forest system alone?—No, the De Forest is a spark telegraphy; this, the Poulsen, is a continuous wave. All these facts tend to produce great efficiency and selectivity. In actual practice, a difference of one per cent. in wave-length will suffice to prevent interference between two lines of communication working within range of each other.

Mr. Gwynn.

2562. It follows from what you say, does it not, that if you may not modify your wave length, you cannot have selectivity?—If you cannot modify your wave length sufficiently to prevent interference; but of course in order to have selectivity, one must be able to "tune."

2563. And that condition of tuning is, is it not, that the wave length shall not be stereotyped?—Shall not be absolutely stereotyped: that is to say, if you give us a range within one or two per cent. on either side, we can avoid interference between several stations communicating. I take it there would be nothing in the Convention which would tend to bind one down specifically to one particular wave length for all purposes.

2564. Is it not the case that under the Convention it is stipulated that for commercial purposes the wave length either of 300 or 600 metres shall be employed?—Yes. Then you see one may rise from 300 to 600.

Chairman.

2565. You consider that that is a wide enough margin?—Between, yes

Mr. Gwynn.

2566. The stipulation is that a wave length, either of 300 metres or of 600 metres shall be employed?—I rather understood that it was between those two figures we might operate.

Chairman.

2567. Now will you tell the Committee the disadvantages which you contend your company is at present subject to?—From what I have said it will be evident that our latest apparatus is capable of working within a comparatively short distance of other installations without suffering disturbance. In fact, when using the continuous wave system, in ordinary practice, we are never aware of the existence of waves transmitted by other stations; and according to my experience other stations are equally undisturbed by our signals. Therefore we claim—and reasonably so, I think—that we should be allowed to erect and operate continuous wave-

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Chairman—continued.

stations for our own special purposes, wherever we may wish to do so. Naturally we should not wish to build stations where they would be likely to interfere with others; because in so doing, others would probably interfere with our working. Under the Convention, we should be entitled to put up stations for our own special purposes; but in existing circumstances, licences have to be refused us; because such licences would permit us to use the means commonly employed in wireless telegraphy; or, at any rate, there would be nothing to prevent vessels from signalling to us by the ordinary means and thus interfering with neighbouring stations. The result is that, at present, we are debarred from obtaining communication in various important localities—notably on the South Coast of England. We may not erect stations of our own, and the existing stations will not accept messages from vessels using our apparatus. Even the stations controlled by Lloyd's are debarred from communicating with us. This we consider to be not only a very great hardship but also an injustice. Our more perfect system is hampered by restrictions imposed upon us by those who employ an older and comparatively primitive system.

2568. Have you suffered the loss of any business on account of these existing restrictions?—The present lack of general organisation undoubtedly results in the loss of a vast amount of business which otherwise would be done. In very many instances, vessels cannot be fitted with our apparatus, because in the localities where communication is most needed we have no shore stations to take the messages; the existing stations will not communicate and we are not allowed to erect stations of our own. To obtain the required communication, those vessels must be fitted with the type of apparatus used at the existing shore stations. The owners of those vessels refuse to adopt that type of apparatus; and, therefore, there arises a total loss of much valuable business, and there is a great hindrance to progress.

2569. Do you consider that there is a necessity for the ratification of the Convention?—If the Convention be ratified, the detrimental circumstances I have mentioned must, automatically, cease to exist. Not only would this benefit radiotelegraphic companies in general, but also the particular company which at present refuses to intercommunicate with other systems. If the principle of general intercommunication were adopted, my Company, for example, could immediately undertake the equipment of numerous vessels which at present it would be useless to equip. Therein we should benefit. The existing stations would accept messages from those vessels and would be paid for doing so. They would obtain much traffic which now they do not get. Further, we should have no justification for our present desire to erect stations which would enter into competition with those that already exist. Such being the case, I venture to say that intercommunication would benefit the owners of existing stations at least as much as it would benefit the Company I represent. Concerning the Convention as a whole, there is in

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my mind no shadow of doubt as to the desirability of having it ratified by the British Government. Broadly speaking, I have two main reasons for adopting that view. Firstly, the present state of chaos is intolerable and utterly opposed to rational progress; while, if the Convention were ratified, that chaos would be converted into order; secondly, the British Delegates who attended the Berlin Conference practically dictated the final wording of the Convention. In all matters affecting the interests of this country they carried their point. They express themselves satisfied with the result of their efforts. If I had no other reason for supporting the Convention, these considerations would compel me to do so. I have reason to appreciate the ability of those gentlemen who represented Great Britain at the Conference, and it seems to me that this country should unhesitatingly abide by their decision.

2570. Now I understand there are certain points that were raised by Mr. Cuthbert Hall the other day, in the evidence that he gave before the Committee, which you would like to allude to?—Yes, Sir; there are certain points in Mr Cuthbert Hall's evidence that I feel it my duty, as representing the Amalgamated Radiotelegraph Company, to comment upon.

2571. We will take the questions as you have just put them down in your précis. As regards Question 1288, dealing with aerial and earth connections, what do you say?—Mr. Hall says, in Question 1288, "The particular feature is the aerial and the earth connection." Now I would like to point out that the aerial and earth connections were used by Dolbear in 1886, by Edison in 1891, and by Kitsee in 1895. Mr. Marconi's patent was taken out in 1896, so I do not see how the aerial and earth connections can be "the particular feature" of the Marconi patent.

2572. Then do you know of any stations carrying on a public telegraph service by means of wireless telegraph apparatus other than those established under the Marconi system?—That is referred to by Mr. Hall in answer to Question 1311. He says, "I know of no stations carrying on a public telegraph service by means of wireless telegraph apparatus on other systems in the sense of transmitting messages of the public on payment of a rate." Well, the Amalgamated Radiotelegraph Company, and also the American De Forest Company, carry on a public service. However, the official list furnished by Mr. Gavey will serve to show that there are obviously many stations other than those of the Marconi system which undertake commercial traffic. On behalf of my own Company I may say that its efforts in this direction have been seriously hampered by the refusal of licences to erect communicating stations. Even at this moment we have several applications held in abeyance. It can scarcely be said that there has been free competition between the Marconi Company and ourselves; that is to say, it is not our fault that we are not carrying on an extended service of this kind; it is merely owing to the fact that we have not been allowed to do so. We are perfectly willing to do so when we are permitted.

Chairman—continued.

2573. Then what is your view as to the contention that the policy of non-intercommunication has been justified by the results?—That is in reference to Question 1332. Mr. Hall there says: "I think the policy is justified to a certain extent by the results." Well, then I say the policy is not justified. The only possible justification for any policy consists in its results, and so far the principal result produced by the Marconi policy has been to hasten the establishment of an International Convention to which that policy is entirely opposed.

2573*. What have you to say as to the objection to compulsory intercommunication in connection with interference?—Mr. Hall refers to that in Question 1352. He says: "Intercommunication is an impracticable scheme, in the first instance; it must result, in our opinion, in the disorganisation of the service altogether." Then (Question 1353), he says: "There are no physical means of excluding a wireless message from a station if the operator chooses to disobey the regulations; the man at the coast station cannot possibly prevent the message from being transmitted." And then again, in his answer to Question 1445, Mr. Hall says: "We cannot have two stations serving the same area if they have got the same range." Inferentially then, they could serve the same area if they had not the same range; though I should have imagined in that case the one would have served a smaller area than the other. I contend that in the case of an operator refusing to obey regulations, under the Convention the dismissal of that operator would occur as a matter of course. Mr. Hall's view appears to be that intercommunication is impracticable because a shore station cannot receive two or more messages at one time; and of course vessels would try to send messages simultaneously. That was his point. Well, I must insist that this is a view quite contrary to that which one might expect to find advanced by the Marconi Company. I venture to say that the honourable members of this Committee must retain, individually, a clear recollection of certain statements persistently made by the Marconi Company during recent years. We have all heard, from time to time, that other systems are technically incapable of intercommunicating with Marconi stations. Eminent scientific men have been challenged to read signals sent out from Marconi stations. It has been said that no other system could interfere with Marconi signalling or take Marconi messages. Therefore, one would naturally expect that the Marconi Company's argument against intercommunication would be that it is impossible for other systems to intercommunicate with that of Marconi. I do not wish to pursue this question further, although I have felt compelled to raise the point. It is not without importance to the present Inquiry, and, if need be, I can prove the point I have raised. I have here a large number of published evidences, which I am quite prepared to produce if called upon to do so; and in common justice I am entitled to point out the fact that I have been held up to public reprobation for saying precisely what Mr. Hall has said in his evidence. The proofs are here.

2574. Now,

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2574. Now, as regards the means for preventing interference under the Convention, have you anything to say to that?—That is with reference to Question 1354. Mr. Cuthbert Hall said: "We have had this difficulty to deal with ourselves," that is, the difficulty of two operators trying to communicate simultaneously and refusing to obey instructions. He says: "We have eliminated that risk by introducing a bonus system under which the operators receive a certain bonus on every message—every word sent—provided that every rule and regulation has been observed." That is to say, while declaring that there are no technical means for preventing mutual interference between stations, Mr. Hall explains how his Company, by means of a bonus system, has succeeded in exacting from rival operators a due respect for their mutual interests. Assuming that to be the only possible solution of the difficulty, I would suggest that, under the Convention, it would be quite as efficient as it is in present circumstances. But the necessity for introducing the bonus system, long before the Convention became requisite, shows that private organisation is at least as incapable of preventing rival interference as, according to Mr. Hall, would be the case with an International Convention.

2575. Then as regards interference at present experienced by the Navy you wish to say something, do you not?—That is referred to, I think, by Mr. Hall in Question 1371. He says: "The Navy say that they experience great interference; I do not quite understand why they have not called upon us in the terms of our contract to avoid interference with them by our own stations, and to provide them with means for preventing interference with other stations." Well, there can be no doubt that, amid the chaos now existing, there is bound to be much trouble of this kind. Mr. Hall, however, goes on to suggest that, in accordance with the Admiralty-Marconi Contract, the Navy should have applied to his Company for adequate means of preventing such interference. I would point out that, since the bonus system is the only remedy known to the Marconi Company, and that system is utterly inapplicable to the case in point, it would be absurd for the Navy to demand from the Marconi Company a thing which admittedly that Company does not possess. The only remedy would be to bribe the operators not to interfere, which does not appear to be very efficient.

2576. There are a good many questions in your précis which I do not propose to trouble you with or to ask you about; I will go to page 4, as regards the protection of patent rights; have you got anything to say as to that?—Mr. Hall says: "Another thing asked for at the Conference was protection for patentees. The effect of the discussion was:—Only the Marconi Company attaches any importance to this protection; that is to say, only the Marconi Company has got any patents of value." Well, Sir, it appears to me with regard to that that other patentees felt themselves quite sufficiently protected by their patents and did not require any further protection; and it would seem that in attaching importance to this protection from

Chairman—continued.

the Government, it was rather a sign of weakness on the Marconi Company's part than of their having very strong interests to protect.

2577. Unless you desire to put any very important points in, I do not propose to ask you any more questions?—Very well, Sir.

Mr. Arthur Lee.

2578. I understand from your evidence that you regard the Poulsen system technically as being superior to all others. I think you said others were primitive in comparison?—Some.

2578*. What I really want to get at is this: Suppose that it was universally recognised that the Poulsen system, which I understand differs in principle from all others, was the best, and therefore one that should be encouraged, do not the terms of the Convention, as interpreted by the regulations, rather tend to cripple the Poulsen system as against the various spark systems?—I do not think so; we should naturally instal both.

2579. You would keep your De Forest as a sort of second barrel, I understand?—Yes; we have to intercommunicate with everything that comes along.

2580. Does it not suggest that the Convention, when drawn up, did not give sufficient consideration to the reality of the Poulsen system?—That is not a point with which I am struck.

2581. Let me put it in this way: Supposing you had not got the De Forest system as a second barrel, the Convention would really operate to your injury, would it not?—It would in that case undoubtedly; but as we have the other it makes no practical difference.

2582. Supposing you came to the conclusion and claimed that the De Forest system was so inferior to the Poulsen system that the latter should be the one brought into universal use if possible; the development of that really would be hindered, would it not, by the regulations I am talking about of the Convention—by the regulations under the Convention?—Can you point to any particular regulation to which you refer?

2583. I am thinking about the wave length, for example?—Yes.

2584. Of course I am not technically competent to point out the points of difference, but I understood from your description that the Poulsen system operated independently of wave lengths and sparking and the general attributes of the same?—No, not independently of wave lengths; it has quite as definite a wave length as other systems have; but the waves, instead of falling off from a strong wave to a small one continuously, are at the one level throughout the whole time—that is to say, you get a continuous stream of waves; but the wave length is in precisely the same fashion in all systems.

2585. I am not suggesting that it is possible to alter the regulations now, but I presume, from the point of view of the Poulsen system, you would have tried to secure wave regulation?—I do not think so, because in the case of the Poulsen, if you work on an exclusive wave you have to work at a non-intercommunicating station—that is, an exempted station—and it would be used to communicate with Poulsen apparatus

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apparatus only, as it could not communicate with other apparatus.

2586. Do I understand that we cannot have the benefit of the Poulsen system, except for the exempted stations under the Convention?—I do not see why any place that wants to use the Poulsen system should not use it. If they have already the spark telegraph system they can adopt the Poulsen as well.

2587. Supposing Great Britain wished to adopt the Poulsen system altogether?—It could do so.

2588. But only by exempting stations?—Not at all; they are exempt already—the Government stations.

2589. Yes, they have the power to do so, but would not. As a matter of fact, under the Convention, Government stations have to be exempted?—The private stations would have to be, not the Government stations; the Government stations are exempt; the Admiralty stations do not come in.

2590. I do not mean "Government" in that sense, but in the provision of a public telegraph service?—In that case, as I say, they could only communicate with Poulsen apparatus, but they need not be exempted stations, because they would use the spark telegraphy as well. That is the only remedy for that state of affairs—to use both systems.

2591. Unless the Poulsen superseded the others?—Unless the Poulsen superseded the others; but as time goes on and the Poulsen system is extended the number of vessels fitted with Poulsen apparatus would become more, if not universal.

Mr. Sydney Buxton.

2592. I suppose any new system on the same system as the Poulsen—what you call continuous current instead of in bunches, I think you described it—would also be able to communicate?—Precisely.

2593. That is to say, if that system superseded the spark system, intercommunication would be equally necessary and advantageous?—Precisely. You see that is the direction in which protection is called for; the spark is bound to go; there is no alternative.

Mr. Arthur Lee.

2594. I will assume that?—It is going; the transition stage may be more or less prolonged, but that is the direction in which it will go; and during the transition stage we must, I fear, be compelled to use both systems.

2595. But you look forward to a time when arc telegraphy will be the universal system?—Yes; I look forward to a time when arc telegraphy at any rate (I mean by arc telegraphy some form of continuous current wave telegraphy) will be universal.

Mr. Sydney Buxton.

2596. Meanwhile you are not prevented from encouraging its use by this Article 4, to which your attention has been drawn, which exempts this form of radiotelegraphy from the operation of the Convention?—Precisely.

Mr. Arthur Lee.

2597. Can you tell us if it was accurately stated in the papers a few days ago, that communication had been established by the Poulsen system between Denmark and the Danish West Indies?—It is absolutely untrue; it was published without any authorisation on the part of my Company; we wrote to contradict it, and the contradiction was published next day. Inasmuch as there is no Poulsen station existing in the Danish West Indies, it is utterly a physical impossibility that it could have been so.

Mr. Sydney Buxton.

2598. You were asked some questions in reference to the use of the wave lengths; you know, no doubt, the Articles touching on that, namely, Articles I. and II. of the Regulations, in which certain lengths are reserved for Naval purposes,—between 600 and 1,600 metres, I think, and 300 up to 600 are open for ordinary communications?—Yes.

2599. But the two wave lengths fixed for ordinary general correspondence are 300 and 600?—300 and 600, yes.

2600. How far would that affect your position?—Well, our position in connection with the Poulsen system would be that we should have to use rather longer wave lengths.

2601. I am speaking rather of the other—the De Forest,—the ordinary "spark" system?—It would depend very largely upon whether those wave lengths were supposed to be absolute or whether they were capable of being slightly varied; I should imagine that the Government would not insist upon absolute identity of wave length in all cases; and, that being so, we could manage to work two or three messages simultaneously.

2602. You said that even 1 per cent. would be sufficient?—1 per cent. would be sufficient, and I take it that the majority of "spark" telegraph systems will not work within 1 per cent. of the wave length.

2603. You are aware that these particular 300 and 600 metre wave lengths are not applicable to either exempted stations or to special commercial purposes, the restricted service, and so on?—Yes.

2604. That would give elasticity?—That would give, naturally, elasticity.

2605. You think as regards that there would be sufficient elasticity?—Plenty.

2606. And if it were found by practice that a little more elasticity was wanted it could be obtained?—We should have our particular wave length, each country having its own special powers.

2607. And so long as they were limited to below 300 and above 600 you think elasticity could be given without difficulty and objection?—Yes, we could keep well outside those figures, so that we should not interfere with anybody.

2608. I understood you to say that you had a considerable number of contracts and tenders, and so on, under consideration in addition to the stations already erected. Are those mostly put up on a commercial basis when they are carried through?—I do not know that they would be all commercial stations; in fact, many of

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of them are not; but I know they would be all open to intercommunication.

2609. You have got some contracts in the Colonies, and you have negotiations pending with regard to contracts there?—Yes.

2610. And in the West Indies, and so on?—Yes, in the West Indies.

2611. Does that apply to some shipping companies as well?—Yes, Sir.

2612. Supposing you obtained licences for some of those places, and you opened commercial stations, shipping stations and otherwise, how far would they be affected by the Convention; they would, of course, have to intercommunicate?—Precisely; and that seems to me to be the only manner in which they would be affected; they would have to intercommunicate; and therefore vessels and stations would have to be fitted with both the Poulsen system and the spark telegraph system for the present time.

2613. You rather assume the spark system: they would have to intercommunicate, instead of being prohibited from doing so as they are at present—at least prohibited from intercommunicating with the Marconi system?—Precisely.

2613. You were asked a question as to the differences inherent in various wireless telegraph stations that might be erected, and the advantage of regulation, and so on, in order to prevent confusion and interference: would your view be that that had better be carried out by some international agreement rather than by a private bonus system?—Undoubtedly.

2614. That it is better to have a central authority for these things?—It would appear logical.

2616. A uniform system?—Uniform regulations.

2617. You were asked a question, I think in chief, in reference to the extent of confusion caused by various ship stations which desired to cause interference. In your opinion, is it likely that any ship station would desire to cause interference, assuming, of course, that the Convention was ratified?—Certainly not.

2618. Would it be to their possible advantage?—Certainly not; because, unless they are prepared to let each other get their messages through, they will, none of them, be able to work.

2619. So that you look upon the danger of wilful confusion—with the Convention ratified by all the countries coming in—as not likely to occur?—Undoubtedly; but, in the event of Great Britain standing out of the Convention, there would be very grave danger of interference.

2620. Suppose there was what is called “wireless war”—suppose Great Britain stood out and the other nations ratified the Convention—the Convention going through—they wishing to bring pressure to bear on Great Britain—how far would a wireless war really cause such confusion amongst the various wireless stations as to make the system almost unworkable: Would that be possible?—Well, there are two eventualities that are rather important in this connection; the one is that all the Powers signing the Convention may adhere loyally and rigidly to the terms of that Convention and still they would interfere; and, on the other hand,

Mr. Sydney Buxton—continued.

there is the question that the Powers who have ratified the Convention would endeavour to force Great Britain into ratifying that Convention, and they might give directions to their stations to interfere as much as possible with the working of Great Britain at its stations. Suppose you take the first point, the legitimate work of vessels coming up and down the Channel, those vessels being unable to communicate with Marconi stations on the South Coast, and having adopted intercommunication, would be compelled to communicate with stations on the Continent; in order to do so, being further away from those stations, they would have to use more power than would be requisite to signal to stations on the British coast, and therefore they would undoubtedly interfere with the work of the British stations. Then, when they come outside the 300 kilometre limit, they are not restricted as to the amount of power they shall use in communicating with their stations, therefore vessels approaching our coast off Brow Head, for instance, in Ireland, would begin then to get in touch with France and Germany—they would put on sufficient power to enable them to do so, that would undoubtedly entirely upset all communication with the most important stations by vessels which are arriving.

2621. You mean even without what has been called a “wireless war” in the ordinary operations, assuming we stood out there would almost necessarily be some interference with our stations?—Necessarily so.

2622. We have heard a good deal about the Marconi organisation. Supposing Great Britain stood out of the Convention and refused intercommunication, would it not be necessary for the other ships that were not British ships—fitted with Marconi apparatus—would it not be necessary for them under the Convention to cease to carry Marconi apparatus?—Undoubtedly, it must be so.

2623. In the figures given to us (I have never been able quite to verify them)—apart from the British ships which operate Marconi apparatus, there were, excluding Italian ships, 43 out of the 82 which the Marconi Company claimed as having their apparatus on board—43 of those are foreign ships, French, German, Dutch, Belgian, United States—and I think under the Convention the whole of those 43 would necessarily be prohibited from using the Marconi apparatus?—They would be compelled to put on intercommunicating apparatus.

2624. Therefore, so far as this present organisation is concerned, it manages something like 96 ships, and there would be only the 39 British ships left in the organisation?—Certainly; and further there would be this point, that those vessels would be only able to communicate at one place.

2625. The British ships?—Yes, on the shores of Great Britain.

Mr. Gwynn.

2626. Or where there was a Marconi station existing?—Yes.

Mr. Sydney Buxton.

2627. How do you mean “at one place”?—Perhaps

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[Continued.]

Mr. Sydney Buxton—continued.

Perhaps I should hardly say "at one place," when it depends upon the Colonies; I do not quite know what the Colonies would do.

2628. I thought you said one place, in the Channel?—No, *one place*—England—one part of the world: the other nations would insist upon all stations on their shores, unless exempted stations, intercommunicating.

2629. Only one other question, that is in reference to the patent rights, of which Mr. Cuthbert Hall spoke: Has the Marconi Company brought an action in this country against the De Forest Company—against your Amalgamated Company—for infringement of patent rights?—No, Sir; there was an action brought against the De Forest Company, in America, and Mr. Hall says that the Marconi Company won that action. But I should like to point out, Sir, that the Marconi Company did not win that action on broad claims; they won on two restricted claims only; the decision was given in the De Forest favour on their broad-base claims; therefore, I rather fail to see that the Marconi Company gained a great victory in that action.

2630. At all events, as far as their patent rights are concerned, they have not attempted to protect them in this country by bringing an action against the Amalgamated Radiotelegraph or De Forest Company?—No.

Sir Edward Sassoon.

2631. In connection with the view somewhat strongly held as regards possible interference if this principle of intercommunication comes into force, I should like to ask you whether you are quite satisfied in your own mind as to the efficacy of these regulations and the ease of their enforcement. Are you quite satisfied that they are regulations, as such, which would be effective for the purpose of preventing interference?—I am perfectly satisfied.

2632. More effective than if our service remained as it is carried on at present?—Undoubtedly so; for at present there is nothing effective in the way of preventing interference.

2633. I think you said at the earlier portion of your evidence that, owing to the peculiar feature of the Poulsen patents, you are able to decipher messages received and transmitted from contiguous stations?—Yes, Sir, simultaneously.

2634. Simultaneously?—Yes.

2635. How do you account for the facility to decipher these messages?—The facility to decipher these messages is simply due to the fact that we are able to tune so accurately; a very small variation in wave length enables us to send two messages at once or receive them on different instruments differently tuned.

2636. What type of apparatus would you use for that?—What type of apparatus?—the Poulsen apparatus

2637. That would rather seem to argue for interchangeability between the Poulsen and the various systems; whereas all that you have said would tend to show that they are not interchangeable?—I thought your question was with regard to messages transmitted by Poulsen stations; I take it now you are referring to

Sir Edward Sassoon—continued.

ordinary messages sent by ordinary spark stations.

2638. Yes?—Well, Sir, all that comes very much to this: It depends upon circumstances whether the messages could be deciphered or not.

2639. Upon what has been called the tuning apparatus?—No, Sir, it depends upon how near the stations are. If they were in the same locality and working on anywhere near the same wave length, I am afraid we could not do it.

2640. Have you any idea as to the distance there should be between stations to prevent interference?—That again of course depends on the nature of the station. No doubt to put up two spark stations close together would be bound to produce interference; but say that you have two spark stations 50 miles apart and their arrangement is such that they do not interfere with one another, one might readily put a Poulsen station in between without interfering with either, but one could not put up a spark station, also having the same range, between them without interfering with both.

2641. You have said that you are not able to extend and develop your system and your scope of operations because you are not able to get licences?—Exactly.

2642. What is the reason of that?—Because whenever we apply for licences we are told that if we put up a station that station will interfere either with the Admiralty or with the Marconi stations working; and even although we might put up the station and operate it on the Poulsen system, which would not interfere with the work of these various stations, there is nothing to prevent us having vessels coming along outside and signalling to us by means of ordinary spark telegraphy. The vessels are the chief source of disturbance always; they are movable stations and can come close up to one shore station or another.

2643. What I am trying to get at from you is whether there is anything in the Regulations that would prevent you getting licences to work your system?—In the Regulations? No, Sir.

2644. Nothing?—No.

2645. So that whether the Berlin Convention comes into force or not, it will depend upon the exercise of your system whether you can stimulate your business?—Entirely.

2646. You said that the bonus system adopted by the Marconi Company was not a system that could be recommended because it involved bribing people?—Exactly; that is what it would have to come to in cases between one company and another; but under Regulations, if you have specific regulations which would be mutually enforced among all nations, there is no reason whatever why there should be any such bribery.

2647. Surely a service conducted under one unified control is much more capable of being kept in check, so to speak, than a service conducted by different types of apparatus, different operators actuated by great zeal to send their messages, and so on?—I really fail to see how it has operated up to now, because the Marconi Company has admitted that the only plan is to pay a bonus to their operators. If the operator has to be licensed and he then disobeys the Regulations,

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Sir Edward Sassoon—continued.

Regulations, he will know that he is subject to the loss of his licence; and he then surely has every incentive to avoid, as far as possible, all interference.

Mr. Gwynn.

2648. On that point that Sir Edward Sassoon has just been putting to you, has not the same restriction existed up to the present time,—that is to say, that an operator under the Convention might lose his licence if he disobeyed the Regulation presumably, and being in the employment of the Marconi Company he might have been dismissed?—He might; but then I take it the operators referred to were employed by foreign shipping companies, and so on.

2649. I think not?—You think not.

2650. We have been given to understand that the Marconi Company made a practice of employing their own operators?—Their own operators.

2651. Would you not consider that a system which not only supplied apparatus but operators wherever the apparatus was in use, represented a more centralised control than could be achieved by an International agreement under which any apparatus could be used, any operator of which the controlling authority was an unorganised member of Governments?—Well, Sir, I take it in this case the controlling authority would be the Governments themselves and not an individual company as at present; all the companies would be simply acting in uniformity.

2652. If I may say so, that does not seem to be provided by the Convention. Is it not the case that under the Convention complaint must be made ultimately to the Government?—Yes.

2653. That is to say, the control is not in the Company, but in the Government from whom the Company gets authorisation to work?—Yes.

2654. In that case, where is your central authority for the control of wireless telegraphy?—A central authority! Well, I take it the position would be very similar to that in connection with the cables at the present moment. The analogy is not altogether perfect, but still the cases are very similar; you have various cable companies working in various nations.

2655. You think there is no difference between the action of cables which can be absolutely physically controlled by individual companies and the ether which can be attacked by anyone possessing an instrument?—Of course that creates the distinction, and the Regulations have been modified in accordance with it.

2656. And you think the Regulations are sufficient?—I do.

2657. You referred in your evidence to the state of chaos which is existing now. Has your attention been called to the Marconi Company's statement that they transmit messages with an average percentage of error of 1 in 200 words?—Yes.

2658. Do you regard that as incompatible with the existence of a state of chaos?—No, Sir, I do not.

2659. Then do you question the assertion?—No, Sir.

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Mr. Gwynn—continued.

2660. Then how do you justify your statement that there is a state of chaos?—To anyone who has sat up days and weeks and months and years at a wireless telegraphy station, noting the work of wireless telegraphy, there is not the slightest difficulty in understanding that. When you sit and see a message coming in time after time, time after time, time after time, and questions being asked: "What is this?" "What is that?" and so on, until finally you get the message right; then you begin to realise how it is one can work successfully in spite of the interference.

2661. But at the same time you admit that the result is achieved?—The result is completely achieved; but apart from interference it would be achieved far more readily.

2662. I do not quite gather from your evidence whether the Amalgamated Radio-Telegraph Company—your company—or your Amalgamated Company—exists simply for the purpose of supplying apparatus or for conducting a public telegraph service?—For both.

2663. And at how many stations are you conducting public commercial business?—In England, two.

2664. In England, two; but taking the whole world generally?—Taking the whole world generally, of course we have not the American rights at all, but in America there are many stations, and elsewhere. We have I think two in Denmark.

2665. Two in Denmark?—Yes, and one I believe in Russia, worked by the Government of that country.

2666. There are altogether five commercial stations being operated by your company?—Yes.

Mr. Sydney Buxton.

2667. Besides those in America?—Besides those in America, owned by the American De Forest Company.

Mr. Gwynn.

2668. And outside America?—Outside America; we have no American rights; there is, however, a large number of stations in America.

2669. As a company carrying on the business of a public telegraph service by wireless apparatus you have five stations?—Yes.

Mr. Sydney Buxton.

2670. I understand there are De Forest system stations in America; but that De Forest belongs to another company?—Yes, that belongs to another company.

2671. There are then two systems at work?—Yes.

2672. How many stations are there?—A very great number.

Mr. Gwynn.

2673. If I may explain, I was cross-examining Mr. Gavey as to what would happen supposing the Marconi Company was ruled out of the general business—what organisation would there be to take up the business—was there any organisation in existence; and he was of opinion that an organisation would have to be created?—Largely, very largely.

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2674. Is

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[Continued.]

Mr. Gwynn—continued.

2674. Is there any organisation in America to your knowledge?—Oh, yes.

2675. Conducting commercial business on a large scale?—Of course, I am not in a position to give evidence on that point; we do not know; but speaking for ourselves I say this, that the reason we have not a large organisation is that we have not been allowed to have one.

2676. May it not have been owing to special circumstances—the special circumstances being due to the fact that the Marconi Company had priority?—The Marconi Company was there, but naturally we should not want to put stations up which might interfere with the Marconi people.

2677. Now under the Convention—which would oblige intercommunication, ships could not carry Poulsen apparatus?—Oh, yes, they could.

2678. And accept the condition of intercommunication?—They would carry both kinds of apparatus.

2679. They would carry both?—Yes.

2680. That is to say, you regard it as possible that they might find it to their advantage to carry both?—Yes.

2681. And in the same way you would admit that they might find it to their advantage to carry Marconi apparatus, to have the advantage of the existing Marconi organisation?—Well, possibly; if so, they could do so.

2682. It would be as easy in one case as the other. Now you said, I think, that in the case of spark telegraphy it would be impossible for two stations to be situated near to each other without interfering with one another?—Yes.

2683. Has your attention been called to the fact that Sir Oliver Lodge stated to us here that stations working on his system could be situated quite near to one another and conduct their operations provided the wave lengths employed differed by one per cent.?—Yes, well, of course, I have no knowledge of Sir Oliver Lodge's latest developments, that is something which he has kept quite private to himself up to now.

2684. He employs a system of spark telegraphy, does he not?—That I do not know, but certainly in the case of ordinary spark telegraphy what I have stated is correct.

2685. Has your attention been called to the fact that the Marconi Company have got a station at Poldhu and another at the Lizard, within seven miles of each other?—Yes, Sir.

2686. And that those stations operate simultaneously without confusion?—Yes.

2687. How do you reconcile that with your evidence?—Well, Sir, I do not feel that it is for me to reconcile it; I do not attempt to.

2688. That is to say you do not admit the fact?—I do not admit it; one moment—I wish to qualify that. I do not admit it provided Poldhu is working at its highest power; if it is working at a reduced power it may be possible, owing to the very great difference of wave length; but the mere ordinary electrical induction between Poldhu and the Lizard would certainly prevent the Lizard from using any sensitive apparatus.

2689. On the question of these wave lengths that are imposed by the Convention, the Conven-

Mr. Gwynn—continued.

tion says definitely that wave lengths between 300 and 600 metres are to be allowed for general public correspondence?—Yes.

2690. That is to say, ships coming off the British coast must communicate with either one or another of those wave lengths?—Yes, ordinarily.

2691. Assuming then that two ships employing wave lengths of 300 metres come in range of the same station at the same time, there must be confusion?—There is no reason whatever, Sir, why we should not use the "600" on one of the vessels.

2692. Is it easy for an apparatus to alter the wave length?—Absolutely; it simply means taking a plug out of one place and putting it into another—that is all, in principle.

2693. Let us put the case and assume that there were three; the possibilities of confusion in that case could only be avoided by an arrangement of ordering the operator of this or of that apparatus to stand by?—Precisely.

2694. Whereas if there was an unlimited choice of wave lengths the working could go on simultaneously?—Yes; but you must bear in mind this point: it is not necessary that there should be unlimited working, because if the station and the vessel have efficient communication at all they can ordinarily keep in touch with each other for some eight hours; during that time there is ample opportunity for all vessels which could possibly be within touch at once to get all their messages through.

2695. I just want to put to you one more question about this matter of the wireless war that we have been threatened with so often: Assume the case that Great Britain does not ratify, that the other Powers do ratify, and that the other Powers are anxious to interfere with Great Britain's service, in that case is it not the fact that ships or stations worked for commercial purposes under the Convention are limited in the power that they employ to one kilowatt?—Within 300 kilometres; beyond that, not; therefore a foreign vessel signalling off the Lizard, or signalling off Brow Head, that is, a station further away than 300 kilometres from its own station—

2696. Could use practically any power it liked?—Yes.

2697. Practically, what power can be generated at a ship station?—Well, that depends upon the size of the vessel, naturally, and the kind of aerial, but well up to five kilowatts.

2698. Then you admit that for outside traffic they would be limited to five kilowatts practically, and for inside traffic they would be limited arbitrarily to one kilowatt?—Yes.

2699. They would also be limited under the Convention by the obligation not to interfere with the traffic of contracting parties?—Yes.

2700. Whereas, on the other hand, the British Company would not be under any of these limitations?—Precisely.

2701. In that case, assuming the ratifying parties to be attacking the parties who did not ratify, do you think that the advantage would rest with the attacking parties or with the defending parties?—Of course, the utmost advantage that Great Britain might hope to get out of it would

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[Continued.]

Mr. Gwynn—continued.

would be to checkmate, stalemate, the other; it could do no more than that.

2702. Working under those circumstances, do you think there would be an attack?—I do not fear the possibility of an absolute attack; what I look at is this—that in order to touch their own stations those vessels would have to interfere, whether they wanted to or not.

2703. On the assumption that British stations would be free to employ whatever wave length they liked, so that all their communications could go on wave lengths which were not employed by the ships in the Convention, would the employment of the five kilowatt power more than 300 kilometres at sea derange the working and render it impossible for the British stations to work?—The probability is that those vessels would be far nearer than 300 kilometres to British stations and far more from the others.

2704. You think the employment of the five kilowatt power within range of the British coast would entirely derange the working of the British stations?—I personally had a demonstration of this the other day in connection with the Poulsen system, when the Admiralty brought one of the cruisers, the "Furious," to do so with five kilowatts.

2705. The Marconi Company's contention is that they work at Poldhu with, roughly speaking, a hundred kilowatt power, and at the Lizard simultaneously within a short distance of each other?—I do not quite understand whether they

Mr. Gwynn—continued.

are receiving the message at the Lizard while they are sending the message from Poldhu—that is the point—whether it means that they are sending together receiving together, or sending, and receiving simultaneously; that is the great point which I have not grasped yet.

Mr. Sydney Buxton.

2706. Just one question to clear up this question of wave length: The two limits of 300 and 600 metres are fixed for the coast stations?—For the coast stations, yes.

2707. You are aware that under a subsequent Article the ship stations have practically between 300 and 400 to 600?—Yes.

2708. Have not these two wave lengths been fixed rather with a view of simplifying matters for the ships themselves?—I should say so, because you see ordinarily, or very probably, a vessel would not have anybody who was particularly expert in the use of wireless apparatus or electrical devices; and it is so easy with regard to tuning to just take a plug from one place and put it into another, so as to get either 300 or 600 at will.

2709. In your opinion there is sufficient elasticity in the wave length fixed by the Regulations and the Convention for all practical purposes?—I say so, especially with regard to the fact that vessels will be within touch of one station for eight hours, with plenty of margin, therefore for getting their messages through.

Mr. JOHN HENNIKER HEATON (a Member of the House) Examined.

Chairman.

2710. You come before the Committee as one interested in telegraph connections?—Yes, Sir; for the past 25 years I have devoted my time (I may say my life) to the one task of cheapening, facilitating, improving, and extending communication between all parts of the British Empire and the different parts of England.

2711. Do you come here to-day as representing any particular Colony?—No, Sir. In 1885, I may tell you, as a passing remark, I was appointed to represent an Australian Government at the International Telegraph Conference at Berlin. I carried several resolutions there, and received the thanks of the Government.

Mr. Sydney Buxton.

2712. Which Australian Government was that?—The Tasmanian.

Chairman.

2713. But on this occasion you do not represent any Colony?—No, Sir. I think I should state that last year—in 1906—I was appointed by the Government of New Zealand to represent that country at the Wireless Conference at Berlin. I was in daily communication with the Agents-General for Australasia and with the High Commissioner of New Zealand on the subject—a number of us were prepared to go there. I then

Chairman—continued.

ascertained that the German Government had framed the rules which excluded the Colonies and Dependencies of the British Empire, although they have a voice in the Cable International Telegraph Conventions.

2714. You were actually officially appointed by the New Zealand Government as their delegate at the Conference?—Yes, Sir. Sir Joseph Ward, who is the Prime Minister of New Zealand, and was then Postmaster-General, told me I was appointed, and in a letter to me dated September 26, 1906, from the Prime Minister's Office, Wellington, New Zealand, he says: "I have cabled your appointment as a delegate of the Wireless Telegraph Meeting. I hope you will have a pleasant time there." This is his letter signed. This is the notification sent me; it is a notification under his hand. (The letter was handed in.)

Mr. Sydney Buxton.

2715. And did you get that notification?—I knew it was coming.

2716. Did you get it?—Well, meanwhile, while it was coming, I learned that it was no good completing it; that we were not to be allowed to be present. I went to see various Government authorities. I went to the Post Office and others, and had communication with the Agents-General, and I was told that the British Colonies were not to be represented at

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Berlin. The rules were drawn up, they told me, by the German Government.

2717. Was this notified through the Colonial Office?—Yes. At this moment, I may tell you, that Sir Joseph Ward was not then aware that his predecessor had agreed with the Home Government that it was not necessary to be represented; he entirely altered his views afterwards. He found that the subject of wireless telegraphy was one concerning his Colony and of vital moment, and to-day the Prime Ministers of the Colonies take this view. In Mr. Seddon's time it was a matter of indifference. They take an entirely different view now. Then, you see, when Sir Joseph Ward appointed me to represent New Zealand (the Colonies were consulted some years ago), the thing was not in the state it is now or attracting such general interest.

Chairman.

2718. So that, although you say you were actually appointed by the New Zealand Government, by communication with Sir Joseph Ward, the appointment did not take any shape?—Because the rules drawn up by the German Government excluded the Colonies.

Mr. Sydney Buxton.

2719. How do you mean "drawn up"? Do I understand that this appointment from New Zealand came in the ordinary course through the Colonial Office?—I do not know how; I know this, that I would have gone for New Zealand under that authority of Sir Joseph Ward. I communicated daily with the High Commissioner of New Zealand. I found the Commonwealth of Australia, the Dominion of Canada, and the Dominion, I may say, of New Zealand were excluded, and that it was therefore no good taking further action.

Chairman.

2720. Did you go to Berlin?—I did not go then.

Mr. Sydney Buxton.

2721. How do you mean "excluded"?—We were distinctly informed that we were not allowed to be represented, but that we as Colonies could take part afterwards if England could join the Convention, which you are now called upon to ratify.

Chairman.

2722. Can you tell the Committee what knowledge you have of the wireless telegraphy system?—Well, in the first place I can say that I have sailed over every sea, and I have travelled all over the British Empire, and I think I know every Postal Guide and Postal Law by heart, especially in connection with telegraphy, and it was my idea that wireless telegraphy would greatly help us in cheapening communication to every part of the Empire. In regard to what you ask me now—what knowledge I have about it—I may say I have no technical knowledge of "wireless." I have known Mr. Marconi almost from the day of his

Chairman—continued.

landing here; I was present when the first wireless message was sent from this House of Commons across the Thames, and I have followed every movement of the subject, from that day to this; about 12 years ago I think it began.

2723. In your opinion is the system a good one?—All I can say is that it is absolutely perfect, that it has never failed me, that it is doing its work admirably, that in the case of all the messages I have sent from steamers in the Atlantic, and all the messages I have received (they have not been communications with the Marconi Company, but through messages) I do not think I ever remember one mistake.

Mr. Macpherson.

2724. That is the Marconi Company?—The Marconi Company.

Chairman.

2725. So you cannot mention any?—The same occurs in regard to the Admiralty; it answers admirably there. I have two sons in the Navy; and if I may say so, they tell me that they get better results than Marconi does himself. The Admiralty takes a deep interest in it, and have first-class men (such as, I think, Admiral Jackson and others who work at it and take a deep interest in it) and they tell me they can get better results than Marconi gets. Wireless messages from Portsmouth to Malta and Gibraltar are sent daily.

2726. So you think that the Admiralty system is an improvement on the Marconi system?—It is "Marconi," I think, only an improvement; I have not asked the reason of it, but it is so: the Admiralty work is done so well.

2727. Now do you desire to say anything as regards the Conference which took place at Berlin?—I have but one object—that is, that England shall have premier position. I am acquainted with the circumstances which led to the Berlin Convention—the circumstances which led to the calling of the Conference.

2728. Is that in any way relevant to our inquiry?—It is to this extent—The Conference would not have been called by any other Government in the world.

2729. Is this official knowledge?—It is a very short statement.

2730. Is it official knowledge that you are going to give us?—Well, I learned it from a statement published by one of the delegates at the Conference; I mean the member who represented America, Mr. Waterbury. With one notable exception, there have been no complaints against Marconi. That exception was when the German Emperor's brother went to America. He had perfect wireless communication by the Marconi system the whole way going there.

Mr. Sydney Buxton.

2731. What year was that?—That must be five years ago.

2732. What year?—1902. Marconi's system worked well, and delivered his messages well. On his return, Professor Slaby's system was about

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about to be adopted and the latter wanted to use that system for the German Emperor's brother's messages; and it was alleged that they would not be received by Marconi's Company. The German Emperor thereupon called the Conference.

Chairman.

2733. Do you mean that he called all the Powers together in Conference on account of that?—Yes. I do not think they did any good at the first Conference.

2734. But can you give the Committee what official information you have to bear out that, that this was the origin of the Conference?—I saw a document written by Mr. Waterbury—he was one of the members of the Conference at Berlin, he represented America. I say that if the King of England was treated in the same way about the Duke of Connaught's message—that if the positions were reversed—our King would not have summoned a Conference. The German Emperor would not have listened to such a request from us if he had had the Marconi Company in Berlin at the time, as we had it here.

2735. That is rather second-hand information, is it not?—Yes, I do not pretend that it is not.

2736. Have you anything to say as regards the attitude of the British Post Office?—The only thing I can say about that is that I think they are unduly pressing for the ratification of this Agreement. I maintain that there is no pressing need for it, that no wrongs have been perpetrated through its non-existence, and lastly, that we Britishers hold the field.

2737. Has the Postmaster-General absolute control over wireless telegraphy?—That is a very important point. The Postmaster-General stated in the House of Commons, and it was received with great cheers, that he had entire control.

Mr. Sydney Buxton.

2738. Do you mean the present Postmaster-General?—The present Postmaster-General, and in a very eloquent way he pointed out that he would give a licence to anyone he thought proper, that Marconi had no monopoly. He convinced us that his course was a proper one. I think the House of Commons shared that view, and were glad to know that to-day the Postmaster-General has absolute control over the whole of the system in Great Britain and the United Kingdom.

Chairman.

2739. Will you give to the Committee shortly your reasons for objecting to the ratification of the Convention?—I have very little difficulty about it, and I desire to say that I have no feeling whatever in the statement I would like to give. I am bound to say that the British Post Office authorities and Marconi's Company have not worked harmoniously together, they had not worked well together even before the Conference was held.

Mr. Sydney Buxton.

2740. What evidence have you to show that?—And that the relations between them are strained.

Mr. Sydney Buxton—continued.

2741. What evidence have you to show that?—If you will permit me to proceed: I say that the relations between them are strained. The short history is this—and I know that what I am about to say is absolutely true: Marconi came here, and the Post Office were most friendly to him—most kind; after my friend Sir William Preece had examined the Marconi system, he gave great facilities to Marconi to work the system, even by making an offer on behalf of the British Government (it was not put in writing, but it will be borne out) for a purchase by the Post Office of Marconi's system. If that had been carried out, and Marconi's services secured to the country, it would have suited me in my desire to cheapen communication, and would have done great good for the country. I have since, myself, had correspondence with members of the Government to purchase "Marconi's," and I did not succeed. I may state that the offer made to Marconi, with my personal knowledge, was a very low one, and, unfortunately for the country, Marconi received an enormously higher offer from a company; he accepted that offer. I am bound to say that that step of his excited the Post Office authorities and annoyed them very much (I have got that from themselves), and no one was more annoyed than that able and upright and great representative of the Post Office, Sir William Preece; he tried all he could to get Marconi to come to terms with the Post Office and to transfer his rights there. If Sir William Preece had succeeded, a great deal of this bother would not have occurred. However, no one can blame Marconi for receiving £50,000 or £60,000 or perhaps £100,000 in place of £5,000.

Chairman.

2742. What do you mean by "bother"—the International Convention?—No, what I say is that I do not believe the Government would have troubled about Germany if they had possession or owned this Marconi system. Since that date, Sir, I have never ceased to be troubled by Marconi's and their representatives complaining of injustice to them, and the propagation of injustice on the part of the Post Office (cases they brought before me), and I wrote repeatedly to successive Postmasters-General in order to see justice done to the company, and therefore that is how I get my knowledge of the strained relations between the Post Office and Marconi, which I think, Sir, you must have some knowledge of.

Mr. Sydney Buxton.

2743. Would you mind giving me a specific case in which Marconi has been what you call badly treated, or unjustly treated, by the Post Office?—Well, the cases are innumerable.

2744. Will you give me one, one specific concrete case?—Only one?

2745. Well, I should like one?—The delay, the wearying delay of the Post Office in refusing Marconi a licence.

2746. When?—For years; refusing him a licence to carry on his work and to connect up with him and to work harmoniously is the best evidence.

2747. When

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[Continued.]

Mr. Sydney Buxton—continued.

2747. When did they refuse him the licence?—They refused it for a very long time.

2748. Could you give a little more concrete instance?—No; I will undertake to do so if I look up my papers. I saw the Postmaster-General—I think he was very friendly with me day by day, and we even had a great deputation to him; I led a deputation to the Postmaster-General of the Marconi Company begging the Post Office authorities to do this.

2749. You have made rather a serious accusation (it does not affect me because it was before my time) against the Post Office of dereliction of public duty to a large extent in refusing "Marconi" a licence and obstructing their working, and I think I am entitled to ask for a concrete case, and that you say you are not able to give?—I say that for years they have been obstructing Marconi in every possible way.

2750. I will leave it there?—I insist on saying this—that the Post Office has always been actuated by honourable motives, but by the same official stupidity that I have had to fight from the beginning. I do not for a moment suggest that it has been a case of dishonour or impropriety on the part of the Post Office.

2751. Would you mind giving me a concrete case of "official stupidity"?—A concrete case of official stupidity?

2752. Yes?—I have got a document in my pocket here of a hundred important postal reforms, every one of which the Post Office fought to the end for years, but I carried every one of them.

Chairman.

2753. I do not think we will deal with the "hundred" now?—I am glad to say I am very friendly with the postal authorities to-day, but my friend the Postmaster-General knows too well that they have repeatedly refused these reforms, and we have won afterwards.

2754. Is there anything else you wish to say with regard to the question of wireless telegraphy or with regard to the Convention?—Yes. I say to-day Great Britain is in a grand position and has the only perfect wireless system completely under the control of the Postmaster-General. I say my objection to ratification is not in the interests of Marconi, who certainly not only invented and made wireless messages practicable, but after long toil and heavy expense invented a means of securing privacy by tuning the transmitter and receiver to the same wave lengths. I ask, if you ratify this Convention, how can an operator cope with 73 cyphers? Supposing that Marconi should receive messages from every other inventor, and there are 73, according to the list I have. I say the pointsman at Clapham Junction would have a comparatively easy task to this—receiving, as you propose under the ratification, the messages of all nations and of all inventors. A motley multitude of untrained shipping hands would throw into a hotchpot the wireless transmitting business. I say that no three business men in London having the monopoly we possess would consent to amalgamate their business with foreigners on the terms of equality now proposed. I say it is like

Chairman—continued.

a man owning a five-pound note going into partnership with a man who has only a three-penny bit.

2755. I suppose you have read the Convention, have not you?—Yes; I did not understand a great part of it, but I read all those parts that were not technical.

2756. Have you read those Articles which deal specifically with these apprehensions that you have enumerated?—Yes; I have listened to the evidence here, but apart from the technical point, I only want to know what any common-sense person would say about it.

2757. You think that in spite of all the regulations the confusion you describe will take place?—Undoubtedly.

2758. Why?—It must necessarily. In a word, they all speak apparently different languages; they are different systems. In addition to that, of course, we undoubtedly relinquish geographically strategic advantages in all parts of the earth. By joining these other Powers that have everything to gain and nothing to lose we are acting very stupidly. It could very well be put off for a time.

2759. I gather from your evidence that you speak rather more in the interests here of the Marconi Company than in the interests of the Colony of New Zealand?—You might well judge that. I want to make it clear. I have been offered directorships of every telegraph company, and of Marconi's, and have absolutely refused on every occasion. It would have ruined my work, and I do not want that. I have not half a farthing of interest in any telegraph company.

2760. Have you any other objections you desire to state?—I think the Committee ought to know this. I take the point, and I will state it as shortly as I can: The Post Office sent to the Governments of the Empire through the Colonial Office a letter warning them not to take up the Marconi system in view of the fact that other systems were likely to be brought forward which might be better. I do not blame them for that, but I do blame them for this: they ask for delay with regard to the Colonies (and that letter should be produced—the letter warning the Governments of the Empire not to take up "Marconi's"), and I think it may be wise to ask for delay; but they break the rule themselves; they will not have any delay in joining the Foreign Powers in this Convention.

Mr. Sydney Buxton.

2761. Have you got that letter?—I have heard it read a dozen times and could give the Committee information where it may be had. I would like the Committee to call for that letter from the Colonial Office to the Governments of the Empire.

Chairman.

2762. When was it written?—I think about two or three years ago.

2763. Two or three years ago?—Yes—two years.

2764. At the time of the former Conference?—No; it was written to the Australian and other Governments, warning them not to take up the "Marconi"

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[Continued.]

Chairman—continued.

"Marconi" in view of other systems that were likely to develop; yet they were in a great hurry—I think an undue hurry—the Post Office, to join this Conference at Berlin, and what I now ask for is delay, the same as they ask for in warning the Governments of the Empire not to take up "Marconi."

2765. I gather that you have no objection to the International Convention, provided its ratification does not take place now, or in the immediate future?—At present I represent this view: We have everything, and the Foreign Governments have nothing. I think it is a ridiculous Convention. In the future, if the other Powers develop wireless telegraphy, we can join them. They will be only too glad to join us now; we are the principal partner in the "wireless" of the world, as we are also the principal partner of the "cables" of the world; we own all the telegraph cables of any moment; we own all the best wireless systems, and it is absolute insanity on our part to join Germany under these circumstances. I am sure if Germany had the Marconi's system instead of England and we wished Marconi to speak with a British ship, Germany would not tolerate being dictated to, because she would then have the whip hand as we have it now. This Convention seems to me to be a most astonishing thing to enter into in the light of the whole evidence.

Sir William Holland.

2766. You told us that you were fully acquainted with the circumstances under which the Conference was convened, but I do not think you explained what those circumstances were. You said you had the knowledge, but you did not impart to the Committee what the circumstances were in regard to the German Emperor?—I saw it published that his brother's messages were taken on the Marconi system when he went to America, but were refused on the Marconi system on his return, when he wanted to use Slaby's system. That is the sole cause of the calling of the Conference.

2767. You are very strongly convinced in your own mind, are you, that we shall not gain anything by the Convention. Do you think we shall lose considerably; shall we be losers by it?—We certainly shall not gain, but we stand to lose. It is joining a partnership on very unequal terms.

2768. Will any other Power gain largely by the Convention in your judgment?—All the Powers that have no "wireless" will gain—every one of them.

2769. You mentioned that our Government had issued warnings to the Colonies that they should not take up the Marconi system. Can you say whether any Colony acted on the warning which was issued by the Government?—I am very sorry to give a very important case that came under my knowledge about that. The case I refer to is this: A representative of the Marconi Company went to Australia and New Zealand; he has been there for 18 months; he erected stations in Victoria and Tasmania at enormous expense; between those two places—a distance of 215 miles—over 3,000 words were

Sir William Holland—continued.

exchanged at the inaugural ceremony under the supervision of the Postmaster-General of the Commonwealth Government and his technical officers. Not a single letter in any of the messages was incorrectly received. I received this information from the Postmaster-General of Australia. The apparatus worked at a speed of from 25 to 30 words per minute, and was admitted by the Postmaster-General and all who attended the demonstration to be completely successful. The greatest enthusiasm was aroused at this inauguration of practical working of wireless telegraphy in the Colony. The reason which influenced the Commonwealth Government in not immediately adopting the system was the fact that the Colonial Office, at the instance of the Post Office, advised the Commonwealth Government not to come to any arrangement with the Marconi Company in view of possible improvements. At the time the arrangement was made by the Postmaster-General, he publicly invited the representatives of every other known system to give a similar demonstration over the same distance, but in spite of this challenge no other company had the enterprise or the faith in the practical working of their system to take it up. That is a very strong statement, and I am prepared to prove it.

Mr. Gwynn.

2770. What was the date of the demonstration?—The date of the demonstration was on the 16th July, I think, last year. As it happened, it was the day of an event connected with my life; I was giving a dinner in the House when I got a telegram from the Postmaster-General of Australia saying that the system was perfect.

Sir William Holland.

2771. Still you would not object to any Colony having the best system that was obtainable at the time?—Certainly not; I say that at once of course it should have the best system, but what I do object to is we Britishers giving up everything we have now—no business man in the world would do it. I still desire not to say one word against the Post Office—we need not be bad friends. I know the British Post Office, and my objection is that there is not a business man in the place. I am certain no business man would ratify, or enter into, this agreement or Convention for a moment.

Mr. Macpherson.

2772. You stated that you had no technical knowledge of this principle of wireless telegraphy?—No, I have not.

2773. Yet you make the statement that the Marconi system is absolutely the most perfect?—Yes, by the work it does.

2774. In the face of your previous admission, how can you give us that statement? This morning, for instance, we are assured by a technical expert that another system is the most perfect system of the lot, and yet here you, with no technical knowledge at all, advance a dogmatic statement of that description. It is purely a matter

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Mr. Macpherson—continued.

matter of opinion, I take it?—Yes, I should confirm that, but it is also a matter of practical experience. I have had a very large number of messages by “wireless” and have never had a mistake. I think if there was any complaint to be made in any part of the earth they would have readily told me. I have never had a complaint of “Marconi’s.” I do not think there has been any grievance. That is why I said it is the perfect system; I do not think that anyone will say that it has ever failed.

Mr. Gwynn.

2775. You refer to it as an organisation rather than as a technical method, do you not?—Yes.

Mr. Macpherson.

2776. You will have had messages on other systems, I suppose, as well as on the Marconi?—No, I do not think there is any other. As far as I can see, it is the only system which has given satisfaction. That is my view. If another system comes along, so long as it will give me cheap communication, I will be glad to have it.

2777. You have stated that you are of opinion that we should have purchased the Marconi system; might I ask, is your idea that as regards any system (the most advanced system in your opinion being the Marconi system) the Government should dominate it—control it?—Certainly. Much against the Company’s wishes I have always intrigued to get the Government to take it over as I want them to take over all telegraph systems.

2778. Did you ever impress these views upon the House of Commons at the time, you being a Member of the House?—I did better; I was in communication with Ministers to carry it out. That is in my correspondence.

Mr. Sydney Burton.

2779. Do you think that intercommunication in itself is a feasible system—intercommunication between different systems: Do you think that is feasible in itself?—No.

2780. I understand that you think that with different systems intercommunicating there will be confusion—is not that your point—that if the different systems intercommunicate there will be confusion?—Yes. What I do say, also, is that we ought to have no other system in Britain but our own.

2781. I am not speaking of that. Intercommunication itself is possible, I understand you to admit?—I do not know whether it would be if we each had a different system. Unless you had the one system that would be impossible.

2782. You think that between two distinct systems intercommunication is not possible?—I think the “Clapham Junction” illustration of delay would suggest an answer to that.

2783. I am speaking of the physical fact of two systems trying to intercommunicate. Is that feasible, do you think?—I do not know anything about the technical character of it.

2784. I understood you to say the difficulty would be that if we had several systems intercommunicating there would be confusion. Is

Mr. Sydney Buxton—continued.

not that your point?—I should think there would be confusion if they were under a different “tune.”

2785. You said you wished to have the British system adopted. By that do you mean the Marconi system?—I do not confine myself entirely to that. I only know that we Britishers want a “British Company,” and have a “British Company.” We have now the whip hand; we are masters of the situation.

2786. You mean by the Marconi system?—By the Marconi system we are the masters.

2787. You would like to retain that system as our universal system?—No; I do not know that I should do that, but what I do object to is this astonishing ratification of an agreement with no other Power giving us anything.

2788. Speaking of the English system, I understand you to say that you desire that this Marconi system should be the one adopted because it is in the first place a British system; and, secondly, because you contend, speaking as an expert, that it is the best system?—The only system, I think.

2789. Would not that give them a practical monopoly?—Not while you were in office, because I know that if I came to you to-morrow with another system you would not hesitate a second about giving the other system a licence.

2790. But suppose that the other system is licensed, and intercommunication is refused, or that ratification of the Convention is refused by this country, would not it do very much to enable the Marconi system to retain the monopoly and prevent the other British company from obtaining much opportunity of working?—Certainly not—not while you are master.

2791. I am assuming that the system of intercommunication is refused. Would not the other British companies be very much handicapped in their work if the Marconi Company retained their monopoly in those stations that they now have?—I suppose they have as much right to put stations up—erect stations or institute systems—as anyone else; in fact, the Marconi Company has no monopoly; you will give a licence to anyone who applies so long as they conform to your regulations.

2792. Who will give it them, do you mean?—You will give it them so long as they conform to your regulations. I say that upon the defence so ably made by yourself. I am certain that if another system is introduced to-morrow better than Marconi’s you will not refuse it.

2793. If you have these various systems you must have surely intercommunication, must not you?—Not necessarily.

2794. Each company and each system is to retain its own coast station and its own ship station without any intercommunication with other coast stations and other ship stations by your proposal?—No; my proposal would be to do nothing until these other systems come forward; there is no need now, and there is no opposition worthy of the name.

2795. I am not speaking of that, but of intercommunication. I take it that the object of the International Convention, if ratified by this country and other countries, is that every ship station should be able to communicate with every

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Mr. Sydney Buxton—continued.

every coast station all over the world. Would not that be an advantage to British commerce?—Not at present, or for several years to come; not until they show us something better.

2796. It is not surely a question of advantage of one system over another. The point I am putting to you is this: Would it not be better for a British ship to be able to communicate, whatever its system, with every coast station throughout the world, wherever it went?—Well, I do not know that, but I know this—that for the next five or ten years there will be no other system worth the name.

2797. Let us stick to "five years"; five years hence there may be other systems, what would be your position then?—I cannot say anything about five years hence; I know we hold it now, and it would be useless to part with it.

2798. "We hold what?—We hold the whip handle of "wireless," and we hold the field.

2799. Do you assert as a fact that there are no other wireless stations except the Marconi in the world?—I say there are 70 or 80 or a hundred—no one has spoken through them—stealing from and robbing Marconi.

2800. There are a hundred other stations, do you say?—No; systems.

2801. But I am speaking of "stations"?—Well, I do not know of any that are doing any commercial business.

2802. Are you aware that a considerable number of ships have installations other than "Marconi"?—No, I am sure there are not.

2803. Not the Royal Navy?—Excepting war-ships. I have recently made a tour round the world, and I never heard of ships installed with other systems.

2804. You were in the West Indies the other day, were not you?—Yes.

2805. And fortunately escaped the earthquake?—Yes.

2806. What line were you on?—I was on the Elder Dempster line.

2807. Have they got "wireless"?—No.

2808. Suppose you had been on a ship which had Marconi apparatus on board; would not you have thought it rather peculiar that they should not be able to communicate with the existing system in the West Indies—the Lodge Muirhead system—that they should be prohibited rather from communicating?—That they should be prohibited.

2809. The Lodge Muirhead is the only system which at present has a station in the West Indies. Suppose your ship had been installed with the Marconi apparatus, and you had desired to send back some message in reference, for instance, to the earthquake, would it not have been rather awkward if the Marconi ship had declined to receive such message because it came from what was not a Marconi station?—I am very much astonished to hear that there is a Lodge Muirhead station there; I did not see it myself, nor any one else.

2810. Was not that because your ship had no "wireless"?—No; I know negotiations were going on out there to have "wireless," and we would have been saved a great deal of anxiety and worry if there had been "wireless."

2811. Assuming that there is an installation

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Mr. Sydney Buxton—continued.

of the Lodge Muirhead system or any other—it does not matter what the system is so long as it is not "Marconi"—is it not a disadvantage for a British ship not to be able (possibly it goes throughout the world) to communicate with any station throughout the world whatever the system is?—I do not know anything about the future; I cannot deal with suppositious cases of course. You must be aware that all I know is that we are now in possession of a good system. A suppositious case or something might occur in years to come. It seems to me that this ratification is destined to encourage other than British systems; that it is calculated to do a great deal of harm to us. But you will remember this—as regards the Lodge Muirhead and other systems (which are said to be very good) the time will come when they will develop and enter into opposition (or I think the tendency of most of these companies is to amalgamate if they see danger ahead) and do things better than the Marconi, and I am sure all these years you will have taken care under your powers and arrangements to see fair play to the other companies.

2812. You are in favour, I understand, of competition on a fair basis?—Of course, English competition, yes.

2813. With a view to cheapening—I think your own words were "cheapening and extending wireless telegraphy"?—Exactly.

2814. That you think is best acquired by leaving matters as they now are in the hands of one company?—Entirely.

2815. That is to say, the best way to obtain competition and to cheapen and extend wireless telegraphy is to leave the matter in the hands of one company?—Of course, I do not say that.

2816. I mean a British company, of course?—You raise the case of some company that is likely to be troublesome to Marconi, and I shall welcome them if it answers my purpose. All I want is, and again I repeat it for the thousandth time, that competition when it comes shall receive fair play, and I know that it will receive fair play from you, and then we will see what development there is, but it will take some years. We are, in the meantime, rushing into and signing an agreement to please Germany, which I think I am bound to tell the Committee is not wise when I pledge my word that no harm in the world is done, and that no grievance at present exists, except the one that I have mentioned, and it is absolutely unnecessary to ratify this Convention.

2817. You mean that if the Convention is made in Berlin that is enough to condemn it?—I know that the German merchants are enemies of ours commercially, and others also, and that no business man in the world would do it.

Mr. Gwynn.

2818. May I ask you this: Is your objection an objection to voluntary intercommunication or to compulsory intercommunication?—It is compulsory intercommunication that I object to entirely.

2819. That is to say, you have no objection to the principle of intercommunication in itself.

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[Continued.]

Mr. Gwynn—continued.

What you object to is the proceeding of the Government in coming to the Marconi Company and saying: You must receive messages from whoever sends them?—That exactly expresses my view. I have the strongest objection to the compulsory clauses for interchange.

2820. In the matter of the accessibility of stations to British ships, would you say that wherever there are not stations at present there may in future be Marconi stations just as well as any other stations?—Exactly.

Sir William Holland.

2821. Did I understand you to say that satisfactory wireless messages had been sent from this House?—Yes, eleven years ago.

2822. Where to?—Marconi sent them from a room here (Mr. Gladstone himself was present) across the way—across the Thames.

Mr. Sydney Buxton.

2823. I understand that your objection is to compulsory intercommunication?—It is—strongly.

2824. Do you also object to the compulsory refusal to intercommunicate—that is to say, to prohibit any particular ship from intercommunicating with another system?—No. In the case of danger—

2825. I am not speaking of danger but of ordinary intercommunication?—Yes, just the same as I would in the case of any telegraph company.

2826. You would object to a company laying down an absolute rule that they would not intercommunicate with another company?—

Mr. Sydney Buxton—continued.

Yes, at this stage of the proceedings and for several years.

2827. They ought not to refuse intercommunication, you say, with other systems?—I think I should refuse now; I think I am compelled to, and for several years.

2828. Why?—Because there is no other system in the field. That is only supposition.

2829. Assume that there are other companies in the field already?—Assuming there are others, then I think in years to come you might deal with it.

Mr. Gwynn.

2830. May I just put a point to illustrate that? I think it is rather a verbal point. Can a company compel itself to refuse intercommunication in your opinion?—It interferes with their business.

Mr. Sydney Buxton.

2831. At the present moment, as you are aware, the Marconi Company have up to now refused to allow their stations—coast or ship—to intercommunicate with any other system. You said, in reply to Mr. Gwynn, that you objected to compulsion being put on a company to communicate?—Yes.

2832. I ask you: Do you also say that a company is entitled to absolutely refuse intercommunication?—Yes. I should say so—one telegraph company, or any one holding the rights and privileges of the invention.

2833. I think a moment ago you said you would not object to it in the case of a telegraph company?—No; I repeat I object to compulsion.

Tuesday, 30th April 1907.

MEMBERS PRESENT:

Mr. Adkins.
Mr. Sydney Buxton.
Sir John Dickson-Poynder.
Mr. Gwynn.
Mr. Lambert.

Mr. Arthur Lee.
Mr. Macpherson.
Sir Gilbert Parker.
Sir Edward Sassoon.

Sir JOHN DICKSON-POYNDER, BART. IN THE CHAIR.

Mr. OWEN PHILIPPS (A Member of the House), Examined.

Chairman.

2834. You are the managing director of the Royal Mail Steam Packet Company, are you, not?—I am chairman and managing director of the Royal Mail Steam Packet Company.

2835. What year was it incorporated?—It was incorporated in 1839 by Royal Charter, and owns 43 steamers of a total tonnage of 180,000 tons gross register. I am also the Chairman of the King Line of Cargo Steamers.

2836. Can you enumerate the regular lines of passenger steamers of the Royal Mail Steam Packet Company?—The Royal Mail Steam Packet Company has four regular lines of passenger steamers, namely, a weekly service from Southampton to Vigo, Lisbon, Madeira, Brazils, and River Plate; fortnightly service from Southampton to Vigo, Barbados, Trinidad, Venezuela, Colombia, Colon (Panama) Jamaica and New York; a four-weekly service from London (Tilbury) to Gibraltar, Marseilles, Naples, Egypt, Ceylon and Australia; a monthly service from Southampton to Spain, Havana, and Mexico, besides which the Royal Mail Steam Packet Company has a large number of regular services of cargo steamers.

2837. Which of those steamers are fitted with wireless telegraphy systems?—The steamers that are employed on the Southampton, West Indies, Central American and New York services are fitted with the De Forest system of radiotelegraphy, as owing to these steamers trading along the American coast I found it to be of very great importance that our New York agents should be kept constantly advised as to their exact positions, and the Marconi system was not available for that purpose.

2838. Do you, as representing your company, approve of the Convention in its present form?—Yes, I consider that the Convention marks a great step in advance on the present state of affairs as the present state has many drawbacks which hinder the more extensive use of wireless telegraphy.

2839. Will you give the Committee the chief reasons for that opinion?—The principal reasons

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Chairman—continued.

why I approve of the Convention in its present form are that it will enable all passenger steamers in distress, fitted with telegraphic apparatus, to communicate with all public shore stations that may be in the neighbourhood. It will enable steamers fitted with wireless telegraphy to communicate through any public shore station information as to the position of the ship, what time they expect to arrive at a certain port, the number of passengers they have to disembark, the amount of cargo they have to land, etc. Under the existing circumstances this is rendered impossible in some cases. Our steamers trading between England, the West Indies and New York, when approaching England are unable to communicate with any of the stations now open on the South Coast, so that they are unable to advise our Southampton office by making use of wireless telegraphy, whilst if all systems were made to inter-communicate it would be of the very greatest convenience to us. The Convention will also enable steamers fitted with wireless telegraphy, in case of calls of distress, to communicate with any vessel fitted with any system of wireless telegraphy and in the event of Great Britain afterwards signing the "Additional Undertaking" British steamers will also be able to inter-communicate with most other vessels in regard to dangers to navigation, such as icebergs, derelicts, or approaching storms. In the event of the Marconi policy of non-intercommunication being abandoned, all obstacles to such communication will be at once removed; it will enable a port where there is an infectious disease to communicate with an approaching steamer, warning her not to approach, thus avoiding the necessity of the steamer remaining in quarantine at the next port of call; it will enable passengers on any vessel fitted with wireless telegraphy to communicate private messages through any public shore station which the vessel may pass; it will enable steamers to receive interesting items of news for the information of passengers from any public shore station which

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Mr. OWEN PHILLIPS, M.P.

[Continued.]

Chairman—continued.

which they may pass in any part of the world. Another reason is that it will probably result in Lloyd's stations and also the Admiralty stations being released from their obligations not to intercommunicate with steamers fitted with other systems. This will greatly assist extension in the use of wireless telegraphy. For instance, the R.M.S.P., West Indian and New York steamers, cannot at present intercommunicate with Lloyd's wireless telegraphy stations, which in my opinion is most unreasonable. If I have the Royal Mail Brazil and River Plate and Australian steamers fitted with Marconi system of apparatus they will not be permitted to intercommunicate with our West Indian and New York steamers under the present arrangements. If the Royal Mail West Indian and New York steamers were fitted with Marconi apparatus it would not enable them to communicate with any of the coast stations which they might pass in the West Indies and on the coast of the United States.

2840. Do you mean that they would be unable to communicate now?—Yes, if they were fitted with the Marconi apparatus they would be unable at present to communicate with any of the coast stations, which they might pass in the West Indies and on the coast of the United States, running up from the South. The Convention will insure free competition between the various systems which in my opinion is the best way to prevent unduly onerous conditions being imposed on shipowners and others desiring to make use of wireless telegraphy. The R.M.S.P. steamers have no difficulty in effecting communication with the coast stations in the United States, West Indies, and Central America, and the service between ship and shore stations is carried out efficiently and without confusion.

2841. Do you think it would be in the interest of British Mercantile shipping that this Convention should be ratified?—I believe it would be greatly in the interest of British Mercantile shipping that the British Government should ratify the Convention in its present amended form, which I understand is approved by the British Admiralty.

2842. You desire to show in your evidence that the ratification of the Convention will open out your opportunities of communication which at present are most inconveniently restricted?—That is so.

Mr. Gwynn.

2843. Assuming that Great Britain did not ratify the Convention but licensed the existence of other stations than the Marconi stations on the British coasts your objection would be largely removed to the existing state of affairs, would it not?—No, because we would still be unable to communicate with a large number of stations. I believe in the interests of British shipping it is desirable that every ship should be able to communicate with every station it passes in any part of the world.

2844. But do you not think that it would, to a certain extent, obviate the inconvenience

Mr. Gwynn—continued.

here which your company now suffers?—If one could be assured that alongside every non-intercommunicating station there would be an intercommunicating station, of course the inconvenience would be largely reduced, but even then it does not get over the difficulty. It is most desirable for shipowners that the whole of Lloyd's stations should have the benefit of wireless telegraphy and that they should all be intercommunicating.

Mr. Adkins.

2845. Mr. Gwynn has asked you whether the present defects would be lessened if there were communicating stations adjacent to the non-communicating stations; and you said, that would help to some degree, but do you also attach some importance to ships themselves being under obligation to communicate with other ships? Perhaps I do not make myself clear. Under the present condition of things ships fitted with Marconi apparatus are not allowed to intercommunicate with other ships that have not it, nor with shore stations?—I understand that the Convention does not actually at present oblige every ship to communicate with every other one.

2846. No, certainly not?—But I am strongly in favour of that still further step in advance.

2847. I only want to know—your view is that complete free trade in wireless telegraphy, so far as intercommunication may be described as "free trade," is very desirable?—I believe in complete intercommunication in every way.

Sir Edward Sassoon.

2848. As bearing upon the question just put by Mr. Adkins, have you considered the possibility of the present condition of the science of radiotelegraphy and possible disturbance to our coast stations, which might considerably hamper even your ships in getting the news that they get now. I may tell you that the principle objection of those who desire the postponement of the ratification of the Convention is the possibility of disturbance and dislocation of the present service?—The best answer to that, I think, is that we do not find any difficulty in that way on the American coast, where, I understand, the stations freely intercommunicate.

2849. That is the experience of your company?—That is our experience.

2850. How long has that been your experience?—I went out to the West Indies and Central America and New York in November, 1905, and I then arranged for its establishment, and at once had all our West Indian Mail steamers fitted. It is since that date, and so inconvenient has non-intercommunication been to us that we found that it was useless carrying our operators over here, and therefore I stopped the operators in the West Indies and only picked them up when we got back. The other day when one station was opened in the Bristol Channel, which is intercommunicating, our operators came across, but the fact of not having any intercommunicating shore stations in the English Channel has been such a special inconvenience to

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to us that we have actually not brought the operators over here because we could not inter-communicate.

2851. What is the type of apparatus that is generally adopted in your ships?—It is the De Forest. I understand it is what they call the "spark telegraphy." I am not technical.

2852. Is that the exclusive type which you use?—That is the only type we use at present. I am anxious to see the thing greatly extended.

2853. Have they been able to communicate with other ships using other types of apparatus than the Marconi on the American coast?—I could not say.

2854. And you consider that the "Additional Undertaking" to which other nations than Great Britain have adhered—that is to say, compulsory intercommunication between ship and ship—should be adopted by Great Britain?—I think it would be a still further step in advance. I do not know what the drawbacks may be.

2855. So far the British Delegates have objected to it, as you know?—Yes, I know that.

2856. Then with regard to the removing of the embargo that Lloyd's labour under just now, do you think that the contract that Marconi's have with Lloyd's could be invalidated without due compensation being given to the Marconi Company? Perhaps you do not know?—I do not think any contract should be broken unless the contractor is compensated.

Mr. Arthur Lee.

2857. I understand that your ships are fitted entirely with the De Forest system?—Not all of them. You see, so far, we have only fitted our New York, West Indian, and Central American ships.

2858. I mean those of your ships that are fitted at all with wireless telegraphy are fitted with the De Forest system exclusively?—That is so.

2859. Are you under any contract with the De Forest Company?—No lengthy contract.

2860. Are you under any contract at all to use the De Forest instruments?—Do you mean on all our steamers.

2861. No, exclusively, not to use any other?—Oh, no.

2862. And I presume the chief reason why you adopted the De Forest system was that it is, as I understand, established at coast stations along the American Atlantic coast?—No, they will communicate with any stations they pass.

2863. Yes, but I understand that the greater number of the American coast stations are equipped with the De Forest apparatus; is that why you selected it in preference to other systems?—No, I selected it because it would intercommunicate. We pass other stations besides De Forest Stations; I understand that the other stations in the West Indies are either Lodge Muirhead, or, anyhow, different stations.

2864. So that you selected the De Forest system simply because it would intercommunicate with any stations that were prepared to communicate with it?—Yes.

Mr. Lambert.

2865. You advocate the Convention being ratified without any reservation whatsoever?—Yes, as amended.

2866. As amended by the British delegates at Berlin?—Yes, without any reservation.

2867. And you do that in the interest of the British Mercantile Marine?—That is so.

2868. Clearly so?—Clearly so, without any reservation.

Mr. Sydney Buxton.

2869. Your point, as I understand, being that unless you have a system of compulsory intercommunication in the ordinary way the British ship may be able to communicate in one part of the globe but not in another if it has Marconi apparatus, or if it has not Marconi apparatus?—Yes, that is so; for instance in South America they have recently got up a Marconi Company who are pressing me to fit their apparatus to our River Plate steamers, but what is to happen when, as is often the case, we put them on to the West Indian route? If I fit the Marconi apparatus to our Brazil and River Plate steamers, when they are put on the other route, which they have to be in the ordinary course of business occasionally, they would be unable to communicate with American stations; and that is delaying my fitting wireless telegraphy to our steamers.

2870. And you think, from the commercial point of view, that a ship fitted with any form of apparatus ought to be equally free to communicate with any station in any part of the globe?—That is my view.

2871. And I understand you also to say that as far as you are concerned, and I think other companies too, it has very much hampered your relations with Lloyd's?—I think Lloyd's are not fitting as many wireless telegraphy stations as they would if it were not for that consideration.

2872. Because they are bound to have "Marconi," and therefore are not able to communicate?—Yes.

Sir Gilbert Parker.

2873. Arising out of that, do I understand you to say that you have been in communication and negotiation with the Marconi Company to establish their system upon certain of your ships in a certain part of the world, and that you are unable to do so, because if you send those ships to another portion of the world where there were other stations and other apparatus you could not communicate?—When I say "Marconi" (I understand there are several companies) it is a company that has "Marconi" in its name. I had a letter—I think it was by the last mail—from the Argentine pressing me to fit our steamers with "Marconi." It is not that I am unable to fit them, because, of course, I could fit them with these reservations, but it makes it less desirable to fit them from the fact that if the boats go on the other route it will be no use having the apparatus on board.

2874. And in that particular district there are more Marconi stations, I take it, than stations of

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[Continued.]

Sir Gilbert Parker—continued.

of any other system?—No, I think the actual position is that there are no stations.

2875. No stations at all?—And they are very anxious, as we are the leading line. We opened up communication about 50 years ago with the Plate, and are the leading Mail line upon the Brazil and River Plate route, and they are very anxious to have our steamers fitted.

2876. And if the Marconi Company permitted intercommunication you would probably make an arrangement with them?—That is so.

2877. But because they do not permit intercommunication you do not think it desirable?—One is hesitating to make the connection.

Mr. Gwynn.

2878. May I ask: Did the letter that you speak of from the Argentine come from the Marconi Company, or did it come from some of your business relations out there?—It came direct to me—addressed to me personally as chairman of the Royal Mail Steam Packet Company. I am very sorry I do not know all the details of the Marconi arrangement; but it is some company with the "Marconi" name in it.

2879. At all events you suggest that it came from a wireless telegraphy company?—From a wireless telegraphy company; I think it is a branch of which one of the leading Argentine statesmen is on the board.

Mr. GUGLIELMO MARCONI, LL.D., called in; and Examined.

Chairman.

2880. I understand that you desire to give evidence before the Committee under three main aspects of the question, do you not?—Yes, Sir, on the technical and scientific aspect.

2881. First on the technical and scientific aspect?—Principally on that and on certain commercial aspects.

2882. And on certain points that have been raised by other witnesses?—Points that have been raised by other witnesses and have not been sufficiently touched on so far.

2883. We will take first the scientific and technical aspect of the question; would you tell the Committee first what your official connection now with the Marconi Company is?—I am at present chief technical adviser of the Marconi Company and I have advised—or rather designed—nearly all their stations in different parts of the world; I have been connected with this Company for nearly ten years, and I have also been connected with the Italian Government as adviser for over ten years, well just ten years, and I have advised the Italian Government with reference to the stations that they have erected, those in course of erection, and in the carrying out of all their wireless telegraph service, whether it referred to warships and military purposes, or whether it referred to commercial purposes—that is commercial stations between ship and shore, and in some cases between shore and shore.

2884. What was the date of your first experiment in wireless telegraphy?—I carried out my first experiments in Italy on estates that belonged to my father in the country in 1895—towards the end of 1895 and in 1896—and was able to construct apparatus, utilising the properties of some oscillations which had been discovered a few years before, commonly known as "Hertzian waves" or on broader qualifications as "electrical waves"—electrical oscillations of high frequency. I found by certain peculiarities—by certain devices which I patented in England in 1896—that I could obtain signals through space.

2885. In 1896—were those the first patents you registered?—Yes, on the 2nd June, 1896, that was the first patent I took out in Great Britain. Going back to my experiments in Italy, I was able in 1895 and 1896 to communi-

Chairman—continued.

cate over a distance of two miles. Having done that—having English relations in England—I came over to England partly to see what they said about this invention of mine, and partly also for other reasons, and in England I carried out some further tests. Shortly after my arrival in England, I was introduced to Sir William Preece, who was then engineer-in-chief of the Post Office and Sir William Preece took considerable interest in what I told him I was doing at the time, and asked me to carry out some experiments at the General Post Office in London and at Salisbury in the country in order to demonstrate what I could do. Referring to a note of mine, the first experiments in the G.P.O. in London were carried out during the months of July and August, 1896. They were between the Post Office Buildings at St. Martin's-le-Grand and also between different parts of the same building. Afterwards—in September, 1896—further experiments were carried out on Salisbury Plain, and the distance covered in those tests was $1\frac{1}{2}$ miles, about a quarter of a mile less than I had been able to do before. During the early part of 1897 I carried out some further demonstrations and tests at the G.P.O. in London, and in March of the same year I carried out some other tests on my own account at Salisbury, when the distance was increased to about six or seven miles. I think some representatives of the Navy were present at those tests which I carried out at Salisbury, particularly Captain H. B. Jackson, now Admiral Jackson.

Sir Gilbert Parker.

2886. Was that in 1896—excuse my interrupting?—It was in 1897—in March. In May, 1897, I carried out at the invitation of the Post Office some extensive trials in South Wales, and communication was realised over a distance of nine miles. The results of all these tests which I carried out in England were very clearly described in a lecture given before the Royal Institution by Sir William Preece in 1897. If you will allow me, with reference to a general idea that there is in existence about my early relations with the General Post Office, I wish to state that I shall always feel grateful to the Post Office for the encouragement they gave me, and the interest they took in my methods during those early trials.

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trials. At the same time I would also like to state, on account of a belief that there is about it, that I obtained no financial assistance from the General Post Office; fortunately I did not require it at that time; I only thought it necessary and thought it desirable to interest them in what I was doing and to show them what I could do. It has also been stated by a witness (in answer, I believe, to question 4265) that the Post Office spent thousands of pounds of public money over my system. I can state that this is not the case.

Mr. Lambert.

2887. Who said that?—I think it was Mr. Muirhead, if I remember correctly. I should like to say again, the apparatus used was my own and constructed at my expense. The Post Office very kindly lent me the use of some sounders and relays and an induction coil, and also in Wales allowed me the use of some tall telegraph poles which had been erected like a ship's mast, to which to attach the necessary elevated conductors. In most cases I paid for the carriage of the apparatus, and in all cases my travelling and hotel expenses. I should, however, mention in further illustration of this fact that at the same time the tests were being carried out with my system in South Wales other tests were also going on at the same place with another method of wireless telegraphy devised by Sir William Preece, which has been referred to by Mr. Gavey in his evidence as the "inductive" method, which method I do not think is in consideration at present before this Committee, but it may be that the Post Office at that time spent a considerable sum—at least, a certain amount—of money on this method at the same time as that at which it was experimenting with my method. I also think it is fair to say, in stating my obligations to the General Post Office (I think my friend Mr. Gavey, who was present at these early tests, might confirm me), that no real important scientific contribution to my system of wireless telegraphy was made by the Post Office engineers at that time, though they were very friendly, and did what they could to facilitate the demonstration and the experiments.

Chairman.

2888. You consider that the "Inductive" method which you were speaking of inferior to yours?—Well, it has not been used, so far as I am aware; I consider that it is inferior, practically and scientifically speaking, but it has not been in use, and I do not think it has been even considered by the Radiotelegraphic Convention. I have reason to believe that the Post Office at that time considered that my invention was new, and that they were not trying something that had already been disclosed by English physicists, because when the eminent Engineer-in-Chief of the Post Office, Sir William Preece, lectured at the Royal Institution on June 4th, 1897, which lecture is published in the proceedings of the Royal Institution, 1897, Vol. XV., page 467, he stated: "In July last Mr. Marconi brought to England a new plan. Mr.

Chairman—continued.

Marconi utilises electric or Hertzian waves of very high frequency." Of course I think he was of the belief, as I was, that these Hertzian waves had not been used for wireless telegraphy before the date of those tests.

2889. They had never been used before you say?—I believe they had not, not for actual telegraphy, they might have been used for experiments.

2890. Is that the whole of your evidence with regard to your early connection with the Post Office?—Yes, briefly that is all without going into detail, that is specially the point I wanted to make, at least, the information I desired to give.

2891. Then you gave us the date of your first patent did not you?—Yes, my first British patent was applied for on the 2nd June, 1896. I should state that Dr. Muirhead, in speaking of this patent, mentioned some other patent of Lodge that was applied for shortly afterwards. I would, with your permission, give the dates, so far as I can find them, in the Patent Office Records. The first Marconi British patent was applied for on the 2nd June, 1896, and was accepted on the 2nd July, 1897. The first patent applied for by Lodge for wireless telegraphy was applied for on the 10th May, 1897, and accepted on the 10th August, 1898. I think I am correct so far as I know—it is not a dogmatic statement.

2892. We have had evidence from Sir Oliver Lodge on that point as to his first patent. It does not signify, it is immaterial?—I gave the particular date, as I thought it was material.

2893. Will you explain to the Committee the beginning of wireless telegraphy in Germany?—Well, the German Government apparently had heard of some of the tests that I was doing here. There was a great deal in the newspapers about it at the time, and Professor A. Slaby was sent over here to witness the tests which the Post Office were about to carry out in South Wales on my system. He was introduced to me by Sir William Preece, and I consented to his being present at these tests of my system in South Wales. He, apparently, was very much struck with what he saw. He was on very friendly terms with me at the time, and he went back to Germany and gave a lecture and wrote a book and made various references about the novelty of my work, which I will not repeat here; I think they have already been quoted. Then he wrote to me stating that it would be very much in my interest if arrangements could be made with a certain firm in Germany for the manufacture and sale of my apparatus. At that time the Marconi Company was formed and I naturally asked this German firm to negotiate the matter with the company. These negotiations did not come to anything, for the reason that the consideration for the purchase of my rights in Germany offered by the German Company were not considered sufficient by the Marconi Company. Upon that, Professor Slaby, so far as I know, associated himself with a German firm for the manufacture and sale of apparatus which was of modified form, at least what we considered a modified form

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Chairman—continued.

form of my own apparatus. Later on they made an amalgamation with another worker on the subject—Braun—and the system was called the “Slaby-Arco-Braun.” After that I believe they amalgamated the whole thing under the name of the “Telefunken” system. Well the Telefunken system (my company is advised) is an infringement of my patents in Germany or in other countries. That is the statement of fact I have to make upon that point.

2893*. Has this involved patent litigation between you?—It has not involved litigation yet.

Mr. Arthur Lee.

2894. Can you say why? Is it difficult to institute patent actions into Germany?—Well I should say it was; but the Telefunken system, so far as commercial applications go, has not yet reached that state of practical application whereby it can do much damage to my company; therefore it was thought not necessary at present to attack the Telefunken Company in Germany.

Chairman.

2895. Now we will ask you to give us, as shortly as you will, the technical objections that you have to the Convention in its present form?—Well my objections are principally of a technical character. I feel afraid—I feel certain—that if the Convention under consideration is ratified it will, so to say, wrap up a new science in iron-swaddling-clothes, and in my opinion may tend very seriously to impede the scientific progress of the art. The provision in the Convention whereby it is not obligatory to divulge the technical details of apparatus is of little value, for if the regulations of the Convention are to be strictly adhered to it will not be possible for any one concerned to introduce important improvements in his particular apparatus and make commercial use of these improvements in a general manner without at the same time putting them at the disposal of other and possibly competitive users. The Convention generally works, or will be permitted to be worked, on certain technical assumptions with which I cannot agree. The Convention as drawn up erroneously assumes that the possibility or impossibility of intercommunication between various wireless telegraph apparatus is entirely based on the question of wave lengths. Mr. Babington Smith said, in answer to Question 142, that if two stations in the same neighbourhood are using the same wave length, they will obviously and necessarily interfere with each other; and further, in answer to Question 159, he said that there is no physical difficulty in intercommunication between different systems. Well, I must say that I differ from his view. A receiver can be made to respond (I will try and not be very technical in this matter, though I have to be to a certain extent) to what we call radiated groups of widely-separated, strongly damped oscillations of great amplitude, whilst the same receiver will not respond to a transmitter radiating or sending continuous waves of the same wave length but of small amplitude, or

Chairman—continued.

to a transmitter radiating closely adjacent groups of damped waves of small amplitude, and *vice-versa*. So to speak, it is not all a question of wave lengths. We might say it is a question of the size of the waves. For instance, I can transmit from Poldhu to Poole, and I am ready to demonstrate it at any time, with waves 1,000 metres long, of a certain given amplitude, which will affect a certain given receiver.

Mr. Lambert.

2896. May I ask what is an “amplitude”?—The “amplitude” is the potential which the wave peaks reach to at each oscillation; it is the size of the rise and fall. For instance, we can have a pendulum swing to a certain period; we know that the pendulum takes the same time, has got the same rate of oscillation, whether it is making a large swing or a small swing. A wave of large amplitude might be compared to a pendulum making a very large swing, and then coming to rest, the energy of radiation being included into that big swing; a continuous and small amplitude wave might be compared to a pendulum making a very small swing in the same period, but of course in that case, in order to get a lot of energy into the system, it is necessary that it should make a great number of small swings to give the energy equivalent to one larger swing, so far as the energy given out is concerned.

Chairman.

2897. You have much greater energy in a much smaller compass?—Exactly, the big wave, the large amplitude wave would give a great deal of energy in one oscillation, while the small amplitude wave will have to give a great number of oscillations to give the same amount of energy out; but the rapidity is so great that *time* does not come in as a practical element in the question. I was stating that from Poldhu to Poole I can, with waves of a certain length and of a certain amplitude, affect a certain receiver, while that receiver will not be affected by waves of the same length and a different amplitude, although the two waves are of the same length technically. It is therefore, I think, not only a question of conforming to certain prescribed wave lengths; something else is necessary. Before communication can be effective it must be understood or agreed that the waves have to be of a certain definite amplitude. It also depends entirely upon the nature of the receiving circuit and that of the receiver used. In order to affect the waves of different amplitudes the reception of messages depends nearly entirely upon the receiving circuit you are using and that the other receiver uses. I should emphasise very strongly that these technical considerations are of the greatest importance. No provision for this contingency has been made, so far as I am aware, in the Convention, which has been framed, I should say, with all due deference, on the hypothesis that all systems of wireless telegraphy, whether present or future, will be cognate systems, and that it will be an easy thing to graft one on to another, and

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Chairman—continued.

and that waves have been considered as though they were so many yards of tape, and not really what I understand them to be.

2898. I gather from what you have said that the main factor is not so much the wave length as what you scientifically call the "amplitude"?—No, I do not mean to say that.

2899. The wave length is controlled by the amplitude or the energy put into that wave length?—The wave length is not controlled by the amplitude, but there is another factor I should say which is almost as important as wave length—which cannot be defined as "wave length"—which is "amplitude"; and that is only beginning to become recognised as one of the latest developments of wireless telegraphy. There are two factors.

Mr. Lambert.

2900. Is not "amplitude" the wave length?—No, Sir.

2901. I think you compared just now an amplitude to a pendulum?—Yes.

2902. A greater amplitude would be compared to a longer swing of the pendulum?—Yes, exactly.

2903. Well, would not the longer swing of the pendulum be the wave length?—No, Sir, it would not, because the pendulum takes the same time to make a long swing as it does to make a short one. That is one of the principles discovered by Galileo.

2904. I am very sorry to interrupt you?—I will try to make myself more clear upon that point.

Chairman.

2905. Try and keep us all in our depth. I you can do that we shall be grateful?—Perhaps I may draw it. (*The witness made a sketch.*) That is not very marked, but that would be a wave of large amplitude, and assuming this very small, that would be a wave of a small amplitude but the same wave length.

Mr. Lambert.

2906. Would you draw a wave length in comparison with that?—Yes. (*The witness made a further sketch.*) The wave length is there from the top of those two peaks, or from the top here.

2907. What would be the length of amplitude, from bottom to bottom, or what?—No, from here to there, from the bottom to the top. The wave length is the distance between two consecutive peaks of two waves. I might draw quite a small, little wave, the peaks of which would coincide with the wave I have drawn there (*handing the sketch to the Honourable Member*). A wave length is a question of time; I mean it is a question of periodicity, it takes a certain time for the electricity to go a certain distance—say, 1,000 feet; it takes the same time to go that distance whether the wave is big or whether the wave is small.

Chairman.

2908. Is what you have told us leading on to the point that you take objection to the wave 0.6.

Chairman—continued.

length as laid down in the Convention?—The point is that I take objection to the fact that no provision or no consideration has been given to this question of amplitude; and if the Convention was enforced I believe it would be difficult to enforce it technically; and great numbers of systems at present developing would not be able to intercommunicate at all.

Mr. Gwynn.

2909. You mean, do not you, that the Convention imposes an arbitrary limit on communicating apparatus in respect of one of the two factors and leaves the other factor totally out of sight?—Yes, it does.

Chairman.

2910. There are certain articles in the Convention, are there not, which limit the systems from using an undue amount of energy, which might cause confusion?—Yes, that is quite true; but that is not the point I was considering at present.

2911. Has not that a bearing on it?—No.

Mr. Sydney Buxton.

2912. It deals with the wave length, and, to a certain extent, limits it, but it leaves the question of amplitude out of sight; that is to say, it leaves each system to deal with it as they think best—is not that so?—Is it not that they do not leave it to their discretion, their use of that? In the case of wave lengths there is some limitation in order to give naval wave lengths and for other reasons?—Yes. 2nd B.

2913. By not dealing with amplitude it leaves entire discretion to each system to work on its own lines; is not that so?

Chairman.

2914. Provided the energy used does not cause undue interference?—Yes.

2915. That is so, is it not?—The remark I have been trying to make is that the Convention (erroneously, in my opinion) seems to consider that the question of intercommunication or of non-intercommunication is based on wave lengths. I submit it is not based on wave lengths, and possibly it is based on other conditions which the Convention has not considered.

Mr. Arthur Lee.

2916. Your point is that it leaves it open to different systems to use different amplitudes, and that the effect will be locally to cause interference?—Locally to cause interference or cause the carrying out of the Convention to be impossible.

Mr. Sydney Buxton.

2917. In what way would the leaving of the amplitude to the discretion of each system affect it?—I thought in reply to the Chairman a minute or two ago you said it would not affect it?—What I mean to say is that, suppose I have got a system now which uses continuous waves and a small amplitude and I think it might be desirable

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Mr. MARCONI.

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Mr. Sydney Buxton—continued.

desirable to adopt it on certain ships, well, those ships are not able to intercommunicate with the ordinary big wave of spark telegraphy.

2918. Is not that specially provided for under the Convention by an Article?—Yes, it is provided for by the Regulations of the Convention; but, speaking quite frankly, I foresee some trouble under that Article because of the commercial rivalry that exists in the matter of wireless telegraphy. If a system that cannot intercommunicate is adopted, then it may be concluded that the reason for the adoption of this system is not to intercommunicate.

2919. Does it not look as if this third point to which you refer had been taken into account by the Convention, inasmuch as they have left, as I understand, a discretion with regard to the amplitude and taken into account the position which might arise from one system being unable to communicate with another system altogether?—Yes, they did take that into account. The point I was making was the practical difficulty of putting the Convention into effect.

2920. That is another thing?—Certainly.

Sir Edward Sassoon

2921. Was the question of variety of amplitude not raised at all at the Conference?—Not so far as I am aware, and I have read through the Minutes.

2922. Did the delegate of Montenegro raise it?—No, I do not know that he did; he did not tell me so. My fear is that legislation will be passed with the intention of carrying out a certain scheme and that this legislation, or this Convention, will either be impracticable or will retard the advancement of science.

Chairman.

2923. Impracticable really only in so far as it might cause interference amongst other stations?—No; it might be impossible to carry it out, and at the same time follow the advancement of science in the matter.

Mr. Gwynn.

2924. Is not what you mean this, that under the Convention the normal wave length for a ship is to be 300 metres?—Yes.

2925. Your point is that a ship using a wave length of 300 metres, that is to say, conforming to the Convention in that respect, could by using a certain amplitude that it finds convenient be enabled to intercommunicate?—That is it, yes.

2926. Is not that met by the regulation as to causing interference?—I do not think so.

2927. The ship can, by using an amplitude which is more convenient to it for its own purposes, find itself unable to intercommunicate?—Yes.

2928. That is to say, you may use a wave length of 300 metres, and still, owing to the presence of this second factor, be unable to communicate with a receiver that is "tuned" to 300 metres?—Exactly.

Mr. Sydney Buxton.

2929. Is not that point exactly met by one clause of the Convention?—It is met in the Convention on paper, and I referred to it just now.

Chairman.

2930. You are only apprehensive as to the difficulty of its being put into effect?—Yes.

2931. You realise that it is provided for in the Convention?—It is provided for in the Convention, but I think it ought not to be put in the Convention.

Mr. Arthur Lee.

2932. You think the provision is inadequate or impracticable?—I think it will work out to be impracticable.

Mr. Gwynn.

2933. You mean to say, do not you, that if the object of the Convention is to establish general intercommunication, the Governments who have made this Convention may impose upon their ships and stations the use of a wave length, and of an amplitude which will permit of intercommunication?—Yes.

2934. That is to say, the primary object of the Convention is intercommunication?—Yes.

2935. Although from a scientific point of view it may be more desirable to use a system that will not intercommunicate?—Not intercommunicate, yes.

Mr. Sydney Buxton.

2936. That system, as pointed out before, is in no sense prohibited?—I quite agree; but what I contend is that if the science advances—and advances in the way which I believe it will—these systems which cannot intercommunicate, instead of becoming the exception, will be the rule.

2937. I take it that the system you are speaking of is different to the spark system, and would include the continuous system?—Yes.

2938. I do not use the proper technical term?—I understand.

2939. The spark systems can intercommunicate; I understand they cannot intercommunicate with the continuous system, but the continuous system would be able to intercommunicate?—Yes.

2940. And therefore if they became the predominant system they will be able to carry out intercommunication just as the others can, will not they?—Yes, I presume they would; but I would go even further than that. There are other systems which are being experimented with now, which do not depend, for carrying out communication, on either the principle known as the "continuous system" or the "non-continuous system." Without going into very many details—which I could not go into here—they may be caused by the effects produced by the combination of two waves.

Chairman.

2941. They were also considering these systems in the Convention, were they not?—No.

2942. I

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[Continued]

Chairman—continued.

2942. I think there is an Article which would cover them?—No, not so as not to impede the progress of the science.

Mr. Arthur Lee.

2943. Will you say what system you are referring to?—I am referring to a system of my own.

2944. Not yet in use?—Well, it is being tested now. I expect it will be in use shortly.

2945. You have not a patent for it?—Patents have been applied for.

Mr. Gwynn.

2946. Is it not your point that once the Convention formulates intercommunication as an object, Governments may tend in practice, although they allow these experimental systems to exist side by side with the intercommunicating systems, to discourage the use of a system which will not intercommunicate?—That is exactly what I mean to say.

2947. Is not this what you mean. Although there is a clause in the Convention which permits the working of exceptional systems which will not intercommunicate, the general object of the Convention is to enforce intercommunication?—Yes.

2948. You are therefore afraid that Governments which have made this Convention may discourage the use of systems which do not admit of intercommunication, and in that way retard the progress of science?—Yes, I think that is most likely to occur.

Mr. Adkins.

2949. Might I ask on that: On the other hand, if you have a system which refuses intercommunication, and that system becomes almost world wide, would not that discourage the progress of the science in other systems because of the authoritative position that it will have got?—I think if there was not a Convention the other systems would have every chance which they should have. They should have a good chance of establishing their superiority.

Chairman.

2950. In what way—by intercommunication?—By installing stations and working ships.

Mr. Arthur Lee.

2951. Free competition?—Yes.

Chairman.

2952. With intercommunication?—Well, it would not be possible to have intercommunication if the other system was a system that did not intercommunicate.

Mr. Sydney Buxton.

2953. You are willing that they should have free licences on the southern coast, for instance De Forest, Fessenden, and so on—that they should be given licences for erecting and working stations on the Channel—you would be

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Mr. Sydney Buxton—continued.

willing that the Post Office should give them licences to the, say, Fessenden, De Forest, and any other system—the Lodge-Muirhead—in the Channel, so that they may have free opportunities to compete with the Marconi system?—That is a question for the Government, I suppose; they would decide that according to their own judgment.

2954. As far as “Marconi” is concerned they would not object to these other companies being allowed licences on the channel?—No, I would not.

Chairman.

2955. However, there is a distinct Article in the Final Protocol which will prevent progress being impeded on the lines which you have been describing, is there not? Article IV. of the Final Protocol: “It is understood that, in order that scientific progress may not be impeded, the provisions of Article III. of the Convention do not prevent the possible use of a system of radiotelegraphy incapable of communicating with other systems, provided always that this incapacity is due to the specific nature of the system, and is not the result of arrangements adopted solely with a view to prevent intercommunication”?—I should say, judging from the high feeling (if you will excuse me) which runs upon the matter of wireless telegraphy among certain European Government departments, it may be contended that the object of using a system which cannot intercommunicate is to escape the obligations of the Convention. That is what I feel.

2956. You are apprehensive therefore on that score?—Yes.

Sir Gilbert Parker.

2957. You suggest, I think, that this intercommunication arrangement in the Convention is based upon wave lengths and that scientific inquiry has produced another factor?—Yes.

2958. That is “amplitude”?—Amplitude.

2959. And you suggest further that there may be other factors still to be taken into account produced by further scientific inquiry?—Yes.

2960. And that the increase of these factors will prevent intercommunication being as effective as it should be for the science of radiotelegraphy developing as it should?—Yes.

2961. Because of the restrictions necessarily put, if not in the terms of the Convention, by the practice of intercommunication?—Yes, that is what I mean.

2962. That is it, in effect?—Yes.

2963. Therefore you are opposed to the Convention more upon scientific grounds than upon commercial or professional grounds?—Well, I have got my ideas on the “commercial” aspect, but I feel that the scientific grounds are very important and will render the application of the Convention very difficult, if not impossible.

Chairman.

2964. On scientific grounds, as the wave length has been stereotyped, you would like to have seen amplitude stereotyped along with it. That

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is really what it comes to, is it not?—That is a factor that it would be very difficult to stereotype; the particular devices may belong to certain companies which are not prepared to share them with others.

Mr. Gwynn.

2965. Is it not your point that you would rather see neither the wave length nor the amplitude stereotyped?—That is it.

Mr. Sydney Burton.

2966. Although the wave length is to a certain extent stereotyped, from the naval point of view chiefly, as far as amplitude is concerned, that is not stereotyped in any sense of the term at all?—It is not stereotyped.

2967. It is left entirely free?—Yes.

Chairman.

2968. That is your objection, is it not?—Yes.

Mr. Sydney Buxton.

2969. You do not object to leaving the amplitude question open to each system to deal with as it likes, do you?—I think under the terms of the Convention it would not be possible to apply it without that point coming into consideration, because one might loyally accept, or try to work, the provisions of the Convention and still have to use an apparatus which uses or wave length of 300 metres, and which still would not communicate with another station also using a wave length of 300 metres, because the amplitude is different.

2970. As far as it goes it is more to the advantage—or I gather from what you have said that it is more to the advantage of the various systems and their improvement, and so on, that the question of amplitude should have been left open to the discretion of each system?—It certainly should have been left open—I mean the question of wave lengths.

2971. I am speaking of amplitude?—Yes. I have stated, I think, already that I am not in favour of that. I consider it detrimental to the progress of science that there should be any international communication regulations.

Chairman.

2972. Either as regards wave length or amplitude?—Yes. We have not at all reached finality either in the application or in our knowledge of the subject.

Sir Edward Sassoon.

2973. Can you tell us what determines the use of a special amplitude; is it the specific character of the apparatus?—It is the specific character or nature of the transmitter and of the receiver. The receiver may be made efficiently to respond to a certain amplitude and not to another.

2974. What would be the objection to the Fessenden apparatus using the same amplitude as the Marconi apparatus?—That might be done if it was wise to make rules on that point; I

Sir Edward Sassoon—continued.

contend that it is not, and that it is not wise even in the case of wave lengths.

2975. You think it would be impracticable even if rules existed for the employment of certain definite amplitudes?—Yes, I think at present it is too soon.

Sir Gilbert Parker.

2976. May I ask if my impression is correct that you stated that this factor of amplitude was discovered by yourself, that is, through your own experiments?—Well, I have been working at the subject for some time, and I consider that I did discover means of practically applying or utilizing the different effects which can be obtained by different amplitudes. The knowledge of what amplitude would do or would not do was known to scientific men before I worked at it, but no means were available for applying it to wireless telegraphy.

2977. Could you say whether other inquirers, like Sir Oliver Lodge for instance, recognised the importance of this factor of amplitude as you do, and do you suppose that it was taken into consideration at all by the experts who attended the Conference?—The idea was not taken into consideration by the experts, and with reference to Sir Oliver Lodge, speaking with due deference, I do not think he has considered the subject.

2978. I take it you do not think, as regards the scientific fact, that the experts who had to do with assisting to the conclusions of this Convention took into consideration, or recognised, the full importance of amplitude?—I do not think they did.

Chairman.

2979. "Amplitude" is energy and "syntony" is "tuning," is it not. What bearing has one on the other, what is the connection between them? I am very ignorant on this subject; I only ask you the question for a particular reason, what is the difference between "amplitude" and "syntony"; amplitude is energy, is it not? The energy that is put into a wave—into one wave?—If we have only one wave containing a large amount of energy, I think it would be very difficult to tune on that one wave, because it delivers its energy in one swing. If, instead of having one very big wave, we put the energy into a number of very small waves so that the sum of the powers of those very small waves comes to that of the big wave, then we can get a receiver which will be affected by the cumulative effect of the small waves or impulses in the same way as a pendulum or a church bell can be made to swing by giving it pulls at the right time, according to its period, or as a piano string can be made to vibrate by sounding its note.

2980. You may say that it all comes under the comprehensive title of "tuning"?—Yes.

2981. And tuning has been very carefully considered by many of the witnesses, as we have found in the evidence put before us?—They speak of waves without the differentiation of amplitude at all, and I consider that it will lead to trouble.

2982. That

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Sir Gilbert Parker.

2982. That is to say, a large number of small waves would adjust themselves—as it were shape themselves into harmony more readily than a large wave would shape itself into tune or harmony?—Yes, exactly. The great number of small waves will give very marked syntonic effects; in order to be effective at all they have to influence a receiver which acts through the cumulative effect of twenty or thirty, whilst the larger amplitude single wave, or two or three waves, act more by way of the kind of shock they give to the receiver, which is bound to respond whether it is in tune or not.

Mr. Sydney Buxton.

2983. I think you are aware that the limitation of wave length was chiefly due to the desire to retain certain wave lengths for the use of the Admiralty?—I am aware of that.

2984. And as regards the amplitude that did not affect them—or did not affect them in the same way, and it was therefore left to the discretion of each system?—I presume that is so.

Mr. Gwynn.

2985. Do you consider that the question of amplitude was considered at all by the people who framed the Convention?—No, I do not; I do not think it was considered.

Chairman.

2986. The whole question of tuning was raised, was it not?—It was.

2987. Do you make a very clear distinction between them?—It is necessary to define “amplitude” in order to obtain the tuning. We can have the wave of a certain given length, and if it delivers its energy all in one swing, in one wave, in one oscillation, there will practically be no tuning at all.

2988. But if “tuning” has been generally considered, “amplitude” must have been considered too, must it not?—It should have been considered, I say, but I do not know that it was considered.

Mr. Sydney Buxton.

2989. You cannot say it was not, can you? You were not there?—No, I was not there.

2990. The question of tuning was very carefully considered?—I understand it was considered.

2991. Did not that involve to a great extent the consideration of the question of amplitude?—It should have involved it.

2992. Does not this Article to which reference has been made make it clear that the Convention had in mind these points to which you refer with regard to amplitude?—I am not quite clear upon that.

Mr. Lambert.

2993. Would the limitation of wave lengths between 300 and 600 metres or whatever it is, retard scientific progress?—I think it is unwise to specify in an International Convention any wave lengths at present; it may be found that they are not the most appropriate.

Sir Gilbert Parker.

2994. Do I understand you to say that you would traverse the statement made in previous evidence that you only require to establish the principle of tuning to its highest degree, in order to obviate all the difficulties of intercommunication. That statement has been made; would you traverse that statement?—I would traverse that statement pure and simple.

Chairman.

2995. You do not agree with that from your scientific research?—I do not agree with that.

2996. It has been stated by more than one scientific witness?—Has it?

Sir Gilbert Parker.

2997. You traverse it because of this factor to which you have referred—developed or undeveloped?—Yes.

Mr. Sydney Buxton.

2998. Do you agree with this question and answer:—The question is whether “three ships approaching the Lizard station, and each using a different system of wireless telegraphy, in itself would not create greater confusion in the organisation between the operators on a ship and the operators on a shore station were adequate and proper?” The answer was: “No, supposing the same tune was used, you have to agree to the time.” Do you agree with that?—You have to agree to the amplitude too.

2999. “Three ships approaching the Lizard station, and each using a different system”; it was asked whether that would create confusion; the answer is: “No, supposing the same tune was used. You have to agree to the tune.” Do you agree with that?—No, I do not. I do not see what that “using the same tune” would obviate.

3000. The next question (1646) is: “Tune means the same wave length, and so on, does it not?” the answer is: “Yes, the same wave length.” You do not agree with that?—No, I do not.

3001. That was Mr. Cuthbert Hall’s evidence?—Was it?

Chairman.

3002. Have you anything to say with regard to your objection to the Convention in connection with the method of *direction*?—Yes.

3003. Putting into effect, I suppose you mean?—Yes, “putting into effect.”

3004. Control?—The Convention makes no reference to the directive method by which messages can be projected mainly in a certain direction and by which land stations can receive communications from several ships on different bearings without interference, although these ships may be using the same wave lengths and other similar arrangements the same amplitude say. It has been stated in some of the evidence given that directive methods of wireless telegraphy are only partly successful, I should say this is not correct according to my own experience. The statement is due no doubt to the fact that so far as my tests are concerned I have refrained from adopting

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adopting this method with maximum effect, for the very simple reason that to transmit messages all round to ships, or to transmit news bulletins, would not have suited the present purposes of the company. It is obvious that if I had so equipped a station such as Poldhu that the messages would be projected mainly in one direction then many vessels finding themselves outside the plane of the prescribed area would have been deprived of getting the best results. During certain experiments I had recently at stations on the West Coast, we found that ships in certain positions did not receive, while ships in what was the right direction or bearing did receive.

Mr. Arthur Lee.

3005. What is the angle of the arc at which they did receive?—About thirty degrees.

Chairman.

3006. You do not contend that this has not been provided for in the Convention, do you? You contend, I take it, that the Articles in the Convention will be difficult to put into effect?—I do not think it has been provided for in the Convention. My point is that the Convention has not considered all the aspects of the Art as at present practically established.

3007. Then as regards the limitation of power for ship stations what have you to say?—Well, I have got something to say about this. I conclude, particularly from recent experiments which I have made, that the limitation of power to one kilowatt for ship transmission is unnecessary. I do not understand why vessels should not be competent to use sufficient power to transmit messages over about the same distance at which they receive them. If messages are received, say, a thousand miles out on a ship, I think it would be a great thing in the interests of navigation and in the interests of passengers that they should be able to reply to those messages, even from mid-Atlantic; and I believe that these tuning methods will be sufficiently developed to prevent interference which might occur from these long-distance ships' transmitting.

3008. What is there in the Convention to prevent a ship being furnished with a system for that?—The Convention makes a proviso, or a recommendation I should say, that the power on the ship should not exceed one kilowatt.

Mr. Sydney Buxton.

3009. What Article is that, do you know?—I think it is in the Regulations, Article VI., page 89.

3010. "The power imparted to the radio-telegraphic apparatus must not, in normal circumstances, exceed one kilowatt. Power in excess of one kilowatt may be used if the ship finds it necessary to exchange messages at a distance of more than 300 kilometres from the nearest coast station, or if, by reason of intervening obstacles, communication can only be effected by an increase of power." Does not that imply "if it is necessary for their purposes?"—My only statement was that there was a presumption

Mr. Sydney Buxton—continued.

or implication that ships should not use more than one kilowatt.

3011. Where they do not require more? Where they require more they are allowed to use more, I understand?—If that is a fact—if that is the interpretation—I merely referred to that Article for the fact—I believe it implicated a quasi-obligation, or at least recommendation, not to use more than one.

3012. It distinctly says, "Power in excess of one kilowatt may be used if the ship finds it necessary to exchange messages at a distance," and so on?—It is quite true; but the Article starts by saying that it should not exceed "one."

3013. Yes, but it says that where they require it they may use more than one?—Yes. I have nothing more to say on that except to call attention to the fact.

Chairman.

3014. Then you desire to say something upon the question of the experimental use of ship installations, do you not?—Yes. As far as I can see from reading the regulations, the Convention does not provide for carrying out experiments on board ship. It specifies binding conditions which would render impossible the carrying out of experiments on board ship, thereby placing a very serious barrier again in the way of scientific advance—Article VI. of the Service Regulations (a) (b) and (c), on page 242 of the Translation.

3015. What is your objection to it?—The objection is that it would place obstacles in the way of carrying out experiments on board ships, and I have found, I should say, that it is almost impossible to deny the great advantages which have been derived, so far, from the possibility of the free use of ships of the Mercantile Marine in carrying out long distance tests. This Article says: "Every ship station which is authorised must satisfy the following conditions: (a) The system used must be a syntonised system; (b) the speed of transmission and reception must, in normal circumstances, not be less than 12 words a minute, five letters being counted as one word; and (c) the power imparted . . ."

Mr. Sydney Buxton

3016. Article I refers to coast stations and ship stations which are open for the service of public correspondence between the land and ships at sea; it does not apply to any station which is in an experimental stage or is used for experimental purposes; I think it is only those which are definitely open for commercial purposes?—You mean Article I.

3017. Of the Convention, page 13. I understand your point is that experimental stations which are used for making inventions are shut out by these Service Regulations?—That they will not be licensed unless under those conditions.

3018. Are not those practically outside the Convention altogether—experimental stations? The only stations involved, as I understand, in the Convention are those which are actually open for public correspondence, and anything in connection with them of an experimental nature, or experimental stations, is outside, just as we issue hundreds.

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hundreds of licences for experimental stations?—My understanding of the Convention is that there is no provision for an experimental licence for a ship; and also with reference to what you have said, Marconi ships may be carrying out the commercial work while experiments are being carried out as well, and they might have this ordinary standard (whatever the system is), and there might be a difficulty in the Government licensing the carrying of other apparatus for carrying out experiments, according to my understanding.

3019. Would not that come under Article VII. of the Convention itself, where it “reserves the right of prescribing or permitting the establishment and working, at the stations indicated in Article I.—independently of the installation of which particulars are published in accordance with Article VI.—of other arrangements designed for radiotelegraphic transmission of a special character”?—I thought that that Article I. of the Convention referred to coast stations more particularly.

3020. Article I. referred to coast stations and ship stations “open for public correspondence”; that there is no dispute about. Then as regards these other services of which you speak, either in connection with this company under Article VII.—or if they are only experimental they do not come under any Article at all—I think there is no doubt whatever that an experimental station could be put up side by side or independently?—Well, I read the service regulations as being very definite and specific.

Chairman.

3021. I have now asked you to give the Committee your views on the different heads where you hold objection to the Convention. Have you anything more to say on that subject?—Well, I think I have stated already some of my objections, but I might formulate them.

3022. Have you any condition to suggest that you conceive might be possible in the Convention?—There are some conditions which I do not believe exist at present. I have made a note of them.

3023. Do you desire to put any in?—Yes. I consider that the Convention might be feasible if certain conditions (which I do not believe exist at present) were in existence—if all so-called systems were more on an equal basis so far as efficiency and merits are concerned. I have already said, if the *Art* was in a more concrete state and appeared to have reached or approached finality and could be worked by (I might say) definite rules—rules of thumb—also I should state that it might have been fairer to have a Convention after patent litigation had cleared the air and had disclosed the true relations of inventors.

Mr. Gwynn.

3024. If patent litigation had cleared the air do you mean?—If patent litigation had cleared the air and showed the view of the courts as to the relative position of inventors. If there existed at the present day several large wireless organisations doing a large commercial business. That is all I have to say on that.

Chairman.

3025. What do you consider the position of England will be if she does not ratify?—It is my humble opinion that England by standing out of the Convention has everything to gain and practically nothing to lose. I have referred to the matter of wave length.

Mr. Sydney Buxton.

3026. England, or the Marconi Company, do you mean?—I am speaking of England at present.

Mr. Arthur Lee.

3027. Will you develop that point; it is very important?—Yes. Take the matter of wave lengths. If England does not ratify and all other nations do, then is it not a fact that whilst the latter will be compelled to conform to certain restricted wave lengths, England will be entirely free to use any wave length she chooses? If England does not ratify, and then, in order not to retard the advancement of science or for any other purpose, finds that a modification is absolutely necessary as regards the wave length clause, then England will not be able to secure such a modification or alteration, as far as I understand, without the unanimous consent of all the parties to the Convention. For instance, if France adheres to the Convention, and England does not, then, according to the terms of the Convention, all the stations on the French coast will have to use wave lengths of either the 300 or 600 metres standard, and if by any chance such waves were found to interfere with stations on the South Coast of England, then England would be perfectly free to use any other wave lengths she might think fit. Then there is also the question I have already referred to as to free competition. Well, I have not referred to it in detail, but the question was as to free competition between systems, and I doubt very much whether it would be possible to reconcile compulsory co-operation with free competition. I must say I am entirely in favour of free competition between systems. I agree with Mr. Babington Smith on that score, and I fear that the Regulations of the Convention may not allow that free competition which would otherwise exist.

Mr. Adkins.

3028. How?—By tying down various systems to a certain wave length and also by enforcing intercommunication and forcing co-operation between competitors. That I think is a difficult thing to work. Sir Oliver Lodge I believe agrees with me in that matter, according to the evidence in reply to question 2149—if I may be allowed to refer to it: “May I put it like this: any regulation which limited the choice of wave lengths for a particular station would limit that station’s power to avoid interference and to avoid interfering. (A) Yes.” I think on that point he is in accordance with my view.

Chairman.

3029. Then do you apprehend the difficulty of locating the source of error, if error takes place, under the Convention?—Yes, I think it will

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will be very difficult to locate the source of error. I have made a note about that point.

3030. Will you give your reasons for that?—Yes, I can give some instances. This point has been touched upon very lightly, I think, by the delegates to the Conference. I believe it would be very difficult to locate, or attempt to locate, the seat of error in case of confusion arising from the ignorance or wilful carelessness of operators or even through their mistakes. I have something to do with the commercial and military working of wireless telegraphy, and I find it difficult in many cases.

3031. They are obliged in transmitting a message to give their identification, are they not?—They certainly are; but will it always be accepted by the Government from which the ship is licensed that their operator has been guilty of mistakes or faults or errors in carrying out the Convention? And I also fear that it would be rather a lengthy process to get at the real culprit, as, even if his guilt or fault or error is established, it is not very easy, in my experience, for one Government to always admit that the fault is on the side of its own licensed operators. They would probably say: It is the fault of your land station, that it did not allow communication to be carried out efficiently.

Mr. Gwynn.

3032. I should just like to know about this question of identification. Confusion would arise if two messages were coming to a station simultaneously, would it not?—If they were on the same tune.

3033. In that case both operators would identify themselves before beginning to communicate?—Yes, they should.

3034. But the confusion it seems to me might be put down to either of the operators if the two messages were coming in at the same time?—That is quite so; that is just a case I was thinking of.

3035. Is that the kind of difficulty that you were speaking of?—Exactly.

Mr. Sydney Buxton.

3036. Has not each power, each Government in the case of an operator misbehaving, the power to take the law into its own hands while the question is being tested?—It certainly has that power.

3037. Does not that meet your point?—Well, it does not meet my point as a private individual, because Governments will be probably very slow at cutting off the ship.

3038. I understood your point was, that it is difficult or that it might take some time to bring home punishment to the particular author of the fault?—Yes.

3039. If the Government chooses, delay need not occur, because it can take the law into its own hands, and, while the case is being tried, can refuse to receive communications from the licensed person?—Certainly, it can do that, but I say that, in the case of the other Government, the Government of the operator that made the error might not admit that their operator had made an error.

Chairman.

3040. They would be always in favour of their own people, you mean?—Yes.

Mr. Sydney Buxton.

3041. But that is decided by arbitration, if necessary?—That is quite true; but the other Government might retaliate and might exaggerate the faults of the first Government's licensed operator.

3042. Then that might come in dispute; but, meanwhile, as far as that particular person is concerned, the Government who think they have been injured can refuse to receive communications from him?—Yes, they can refuse.

3043. Does not that give them practically the power of dispensing with the delay which I take to be your chief objection?—My view is that the Government will have to rely on the reports of the operators working the station, and another Government may think the ship is cut off unnecessarily or unfairly; and that may give place to retaliations at the other Government's coast stations.

Chairman.

3044. Of course, there is always the other factor. I suppose you would admit that the Government naturally would have loyalty to its own people; at the same time the Government that desired to come into the Convention, and therefore was in the Convention, would be very anxious that the whole of the intercommunication should be carried on properly; and when anything occurred which prevented that they would be anxious to remedy it, would not they?—That might be so, but I have some doubts.

Sir Edward Sassoon.

3045. You mean it would lead to a temporary wireless war between the two countries themselves?—Well, it might lead to retaliation. I have been in Government offices and seen how these things are dealt with.

Chairman.

3046. You have got down on your paper, Mr. Marconi, "Mr. Gavey's Appendix No. 1." You want to say something on that, I think, and then I think that concludes the questions I have to put to you. Can you explain what it is? I am not quite sure?—It is an appendix showing, or purporting to show, the wireless telegraph stations of the world on different systems. I do not attempt to criticise the paper in any way with reference to stations on other than my own systems which are indicated on it, but only just to point out that the items may be in very many cases inaccurate, as they are in one or two cases which I have been able to investigate during the last two or three days. For example, in Russia, Russia is not credited with any Marconi system at all. Well, as a matter of fact, my company has supplied to Russia 49 stations—complete stations—so it is rather a strange thing where these stations have gone to. Now with reference to China, it is not a very great inaccuracy. In China it is stated there are three stations on my

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[Continued.]

Chairman—continued.

my system. Well, it happens that the Italian Government has installed all the stations on my system in China, and I sent an inquiry to the Italian Government as to the number of stations and I got a telegram from the Minister of Marine on the 23rd of this month, in which he said they had five stations on my system in China. Here we are credited with three, I believe. Then we have got a station in the Argentine Republic which is not marked. There may be other inaccuracies, but I just wanted to point these out.

Mr. Sydney Buxton.

3047. Is the station in the Argentine Republic working?—Yes, I believe it is working.

Mr. Arthur Lee.

3048. But you would not expect great accuracy in a Government Return, would you?—Well, no, but I think it has been stated as a fact—I mean it purports to be up to date. It is dated the 18th of April, 1907.

Chairman.

3049. What do you mean by the omission of 49?—I just want to point out that there may be more; it is very difficult to say.

Mr. Gwynn.

3050. You would say that that map on the wall did not precisely represent the state of the case?—I fear not, it does not.

Mr. Sydney Buxton.

3051. What sort of stations are they?—Some are stations for communication between stations in the interior.

Chairman.

3052. Are they commercial stations?—I do not think they are commercial stations; they are mostly for naval and military purposes; they may be commercial stations. The only thing is that I have had a great deal to do with these stations, and I have instructed the assistants who have been told off for Russia.

3053. However, you desire to traverse the accuracy of this appendix?—Yes, I do on those points.

3054. On the points you mention?—Yes.

3055. Are there any other points you desire to put in? I have gone through the suggestions on the paper you sent me?—I might say another word on *this* list. A great number of the stations which are credited to America are not ship to shore stations at all, and have nothing to do with the Convention. I have been in America very often and can speak with personal knowledge. I am there nearly every three or four months. Some of the stations were set up to demonstrate between inland towns like St Louis, Kansas, Denver—hundreds of miles from the sea—and some others have been put up for advertisement, to advertise a particular system and for the purpose of selling the shares to persons who would like to become interested in those systems.

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Mr. Sydney Buxton.

3056. These Russian stations that you refer to are all ship to shore, are they?—No.

3057. They are not?—They are not.

3058. They come under the same category as those you have referred to in the United States?—Yes.

Mr. Adkins.

3059. Could you tell us how many of the Russian stations are ship to shore stations?—I cannot say that.

Chairman.

3060. Or how many are Admiralty stations?—I cannot say that. I am unable to say.

3061. You have raised points of objection as regards the Convention. I gather from your evidence that it is not so much the Convention ignoring these points as that you are apprehensive that they will be unable to be given full effect to if the Convention comes into work; is not that it?—My personal feeling is that they must have ignored some of the points; but my chief feeling is that, commercially, the Convention is not fair considering the rights granted to patentees; and in the second place that I see such technical difficulties in carrying it out that will militate against its practical application, should it come into force; and also that it will, if strictly enforced, interfere with the scientific development and the practical application of the systems, and that wireless telegraphy may be impeded. That is my personal feeling in the matter. My company has been advised that intercommunication with a system which we are advised is an infringement of our own would prejudice our rights in a patent action which we might eventually take out against that system. The Convention, if it comes into effect, I think will inevitably lead to a vast amount of litigation. My company contend—on the best authority they can get, I suppose—that any system comprising certain particular features of my system—the elevated aerial and other things—is a violation of its fundamental rights; and all the other systems, we are advised, do use the principle and several of the elements embodied in my own system. A whole vista of litigation looms before them, which at present they do not think it necessary to undertake as their interests are not thereby materially affected. Their interests would be affected and they would have to go in for this litigation if the Convention was ratified. It is a very difficult position, and I want to explain it quite frankly. It has been said to me, it has been said to the company: "You should intercommunicate with other systems"; whereas at the same time lawyers say: "If you do intercommunicate you prejudice your patent rights or whatever patent rights you have."

Mr. Lambert.

3062. You have intercommunication with one station, have not you?—Yes, but that is in the case of a country where patent rights do not exist, that is Holland; there is no patent law in Holland.

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3063. Is

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[Continued.]

Mr. Sydney Buxton.

3063. Is there any patent law in the Argentine Republic?—I believe so.

3064. And I understand you have erected a station there under agreement with the Argentine Government. You said so just now?—I did not say it was "under agreement," because I do not know; but I said we have got a station there.

3065. Are you not aware that it is under agreement with the Argentine Republic?—I am not aware.

3066. You are aware that the Argentine Government are one of the signatories to the Convention?—I am aware of that.

3067. Therefore if this station is in connection with them, it would be under the Convention when the Convention comes into force?—I presume so, provided there is no difficulty in doing so—if they are legally entitled to enforce.

3068. Would not that prejudice your patent rights there?—It would, certainly.

3069. And yet the subsidiary company has agreed to this arrangement as a matter of fact?—I am not aware that it has agreed to that.

Chairman.

3070. That is the sole reason, is it—that patent rights are so recent that you are maintaining the policy of non-intercommunication?—No; I have stated a great number of reasons in the course of the evidence I have given before this Committee, and that is one of the reasons, and that is a very important reason.

3071. One of the main reasons?—One of the main reasons.

3072. You will admit that under the present system of business and the system of regulation there is a good deal of interference and confusion going on?—I do not find in the case of my stations that there is interference. There has been a talk of interference in some parts, especially on the coast of the United States. We have been able to obviate that by the use of particular arrangements which minimise the effect of interference; there has been no interference in England.

3073. Looking at it in the general movement over the world of wireless telegraphy apart from your own company, do you consider that it is necessary that there should be more restrictive legislation than at present exists?—No; I do not think there should be any more restriction than at present. I think our Government should legislate if necessary, but I do not think the time has come for any international legislation.

3074. Independent legislation for the respective countries you think would be preferable to a general scheme among the powers?—Yes, that is my idea.

Mr. Arthur Lee.

3075. You think a general scheme might hamper you?—I consider that a general scheme would hamper under certain given conditions which I have enumerated.

Chairman.

3076. But you do not think that individual legislation by countries which might be antago-

Chairman—continued:

nistic to other countries would produce any worse evils than at present exist, or be liable to?—They might produce evils if the legislation was not of the best.

3077. How could you ensure its being of the best?—We could not ensure its being of the best, but I think it would be preferable to an International arrangement in which no Government could make any change without the consent of all the rest.

Sir Gilbert Parker.

3078. Have you any experience of the attitude of Colonial Governments towards wireless telegraphy, and especially towards your company?—I have a considerable experience, at least, to some extent, in connection with the attitude of Colonial Governments. I was in Newfoundland in 1901, where I transmitted the first signals across the Atlantic, and the Government there gave every encouragement to my tests. I negotiated the first Canadian contract between the Canadian Government and my company, and I have discussed on various occasions the question with Colonial Ministers in their own countries. I might mention Sir Wilfrid Laurier, Sir Joseph Ward, Sir Robert Bond, Sir John Forrest, and Mr. Fielding, and I am aware of the negotiations which have been undertaken by our company with Colonial Governments.

3079. Of course, you have not accepted the principle of intercommunication, and may I ask what attitude these Governments took up concerning your refusal to intercommunicate? Did they make any difficulty?—Various Ministers, the late Mr. Prefontaine, and Sir Robert Bond, the Premier of Newfoundland, have, in their contracts with my company, and in letters, and in their communications, agreed that intercommunication was impracticable, and bound themselves, at least agreed, to the principle of non-intercommunication. The difficulties in extending our system in the Colonies have always been raised by the Colonial Office, which was, I am informed, advised by the Post Office in the matter. The Colonies which I have dealt with, so far as I am aware, are not anxious to have intercommunication. I believe it is the British Government that have urged that view upon the Colonies. Two Colonies at least have already got contracts with us—more than two Colonies—and the principal Colonies, Canada and Newfoundland, have had contracts with us for some time, and I negotiated the first Canadian contract.

Mr. Sydney Buxton.

3080. Just a question in reference to what you have said in your evidence as to the relations between the Post Office, the Marconi Company and yourself. I understood you to say they have been of a friendly character; in fact, you went so far as to say you were grateful for the sympathy you had met with at the Post Office?—Yes, that was during my earlier experiments in this country.

3081. Therefore, when it is stated that to some extent they have been badly treated, and unjustly treated, and that there have been strained relations

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relations for many years past between them, that is not correct?—No, I do not agree with you. I do not agree with that view. I said that the friendly relations of the Post Office were with me, such as I have referred to and for which I am grateful; no Marconi Company then existed; it was the case of a private individual.

Mr. Arthur Lee.

3082. I do not quite understand your answer. I understand you to say that there was a friendly understanding between you, personally, and the Post Office, and I understand you to say that there is no friction between the Post Office and the Marconi Company now?—I think I was trying to answer Mr. Buxton's question; and I said that the time I referred to was with reference to my early connection with the British Post Office; at that time there was no Marconi Company, therefore the question of relations between the Marconi Company and the Post Office did not arise.

Mr. Sydney Buxton.

3083. But do you allege that there have been during the last few years strained relations between the company and the Post Office?—Well, I have had little or nothing to do with those relations, but I think that on several occasions the company has complained of the attitude of the Post Office towards them.

3084. Can you tell me a particular case?—Well, I have been a great deal abroad and I have not followed the negotiations; but I would say the best I can.

3085. I should only like to say that that is neither the feeling, the intention, nor the desire on the part of the Post Office, and I was rather glad to hear what you said?—Yes, I am very glad to hear it.

3086. It was before my time, as I said the other day. With regard to the general position I understand from your evidence that you lay great stress on the organisation of the Marconi Company as leading to advantages and to difficulties as between ship and shore stations, difficulties as to communication and so on being refused, you attribute a good deal to your organisation?—Yes.

3087. And that you have a considerable number of ships with your system on board, especially Atlantic liners, and so on, and that that organisation is an advantage to the general work of wireless telegraphy?—I should say it was. It has been referred to as being so.

3088. We had a list handed in the other day of the number of liners on which you have your apparatuses working. I take these figures from this company, from Mr. Cuthbert Hall, though they do not quite correspond with other figures handed in before; but it does not very much matter about the figures; I will take those as actual figures for this purpose. He said there are 39 British ships and 53 continental ships, including 10 Italian ships, fitted with Marconi apparatus. Those are the figures, I will take those figures for the purpose of the argument. You have those ships fitted with Marconi apparatus?—Yes.

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Mr. Sydney Buxton—continued.

3089. And communicating with Marconi stations in the Channel, and so on?—Yes.

3090. And prohibited from intercommunicating with any other stations?—Yes.

3091. Under the Convention—referring to one of the subsequent articles—I take it that those various Continental Governments—all except the Italian Government—will be bound to license stations which are open to intercommunication. Is that so?—Apparently.

3092. Therefore if the British Government refused to ratify—and if the Marconi Company declined to accept the principle of intercommunication—would not the 14 German, the six French, the nine Dutch (they already intercommunicate), the 10 Belgian and the four United States ships—all bearing those stations—have to have the Marconi system removed and have some system which will intercommunicate?—You mean if the Convention is ratified?

3093. If the Convention is ratified by the other countries and not by us—not by Great Britain?—I do not think so, because at present those ships, or many of those ships, cannot communicate with their own shores because they have not got a Marconi station there; I mean the French ships communicate only with England. They find—due to the geographical position of England—that it is of more importance to communicate with England than with their own shores, and although they have been pressed probably to intercommunication with their stations, so far they have preferred to communicate with England rather than to communicate with their own shore.

3094. Is that because at the present moment they have Marconi apparatus on board and Marconi stations are in the Channel, and therefore they naturally communicate with the Marconi stations?—Well, they knew where the Marconi stations were before they put our apparatus on, and I believe that it is more important to them, considering the nationality of the passengers which they carry—the majority—to communicate with England than with France and Germany.

3095. I understand that, but under the Convention—if the Convention is ratified and they adhere to it—would not these foreign Powers be obliged under Article I. “to apply the provisions of the present Convention at all radiotelegraph stations—coast stations and ship stations—open for the service of public correspondence between the land and ships at sea which are established or marked by the Contracting Parties”?—Well, they would be obliged to agree to the Convention, but I do not know what arrangement they could make with their own Governments.

3096. In order to carry out that, would not they be forced any time before the Convention comes into force to erect stations on some foreign territory to communicate with those stations?—I think they have stations already on various coasts.

3097. Would it not be necessary at once to create a larger number of foreign stations to enable these ships to communicate?—I am unable to say quite what I think on that point. I can only say that at present it has not occurred. We, as an English company, have been able

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to keep these ships to communicate with the Marconi stations.

3098. Taking these figures that I have given you at the present moment, you have 53—putting the Italian aside, 43—ships on your organisation which have Marconi apparatus on board. Will not each of the foreign Governments who adhere to the Convention be forced under the terms of the Convention, if the Convention is to be carried out at all, to have these Marconi stations removed and some other system put instead which accepts the principle of intercommunication?—Well, I venture to believe that if they were prevented from communicating with the British coasts or the British Possessions they would come to some arrangement with their own Governments on the matter.

3099. Then, surely, if the countries which adhere to the Convention agree to that, the Convention comes to an end—they cease to carry out the conditions of Article I., which are very specific?—Article IV., I think, in the Articles of the Convention, prescribes, “Notwithstanding the provisions of Article III., a station may be appropriated to a service of public correspondence of a restricted character, determined by the object of the correspondence or by other circumstances independent of the system employed.”

3100. That would not apply to the question of these liners, would it?—They might put up some Marconi stations on their coast to enable their ships to communicate with them.

3101. Which do you mean?—The foreign governments might.

3102. Stations that would not intercommunicate?—Yes.

3103. Is not that against the whole spirit and object of the Convention?—I understand that countries such as France have the right to exempt certain stations from intercommunication.

3104. Certainly, but not in the case of Germany. As to Germany, Belgium, and the United States—these I have to mention have not retained that right; as regards those ships they would not be able to exempt them, would they?—You will correct me, but does not Article IV. refer to practically all countries?

3105. Yes, but that is “of a restricted character.” That has nothing to do with the general principle of intercommunication?—Well, I believed it had.

3106. May I put it thus: As I understand from what you have said—and other opponents to the Convention—the object of the Convention is to force intercommunication in regard to a general system of wireless telegraphy throughout the world?—Well, I quite agree that the object is, in my humble opinion, to be enabled to reap the benefits of an organisation that the proposers of the Convention have not been able to establish themselves.

3107. If that be so—if that is the bottom element of it—would not it be still more certain that they will insist on carrying out the Convention in order to obtain this wireless system on their ships instead of having to come to the Marconi Company?—Presumably not, if they should realise that they would be unable to do so; but if it was impossible to do so

Mr. Sydney Buxton—continued.

having a country like England, which owns more than half the shipping of the world, not adhering to the Convention—a great number of isolated units might not be likely to enter into an ineffective Convention, which it would be impossible to carry out without the adherence of England, as it could not be made effective without the adherence of Great Britain and her Colonies.

3108. I am assuming that the other Powers ratify and that England does not. That is the whole basis as far as we are aware, that other nations will ratify; and if they desire to carry out the spirit of the Convention as well as the letter of it, will not it be certain that they will insist that the stations of their country—the ship stations—shall intercommunicate? Is not that the basis of the whole Convention?—Well, I cannot say I have got experience of what Governments are likely to do.

3109. I am speaking of the Convention as it stands. You have been giving your objections to the Convention on various grounds. I take it for granted that the Convention as it stands is ratified by every one except Great Britain, all the signatories except Great Britain; then I ask: Are not they absolutely bound under the Convention, both by the spirit and the letter of it, not to prohibit intercommunicating stations on ships that carry their flag? I am speaking of Article I. “They undertake moreover to impose the observance of these provisions” (that is the whole of the Convention) “upon private enterprises authorised either to establish or work radiotelegraph coast stations open for the service of public correspondence between the land and ships at sea, or to establish or work radiotelegraph stations, whether open for public correspondence or not on board ships which carry their flag.” Is not that very specific?—That is specific; but on the other hand I think that if it suited their interests they might license or allow stations of a restricted character operating under the proviso of Article IV.

Mr. Gwynn.

3110. Would there be anything in the Convention to prevent their ships carrying duplicate apparatus?—I do not think so.

3111. That is to say, Marconi apparatus and other apparatus?—No, I do not see anything.

3112. Then practically if the Poulsen apparatus were ever to come into use, it could only come into use by being carried as a duplicate apparatus under the Convention. Is not that so?—Well, as at present I think it could not be used for intercommunication.

Mr. Sydney Buxton.

3113. But in any case it would be open to the French Government or the German Government to erect what they considered sufficient stations to meet the difficulties that you have said it would put in the way of these ships if they only had English Marconi stations to communicate with?—I do not quite follow your question.

3114. You said one of the reasons why they would not carry out the provisions of the Convention would be that they would have to communicate

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municate with the English Channel Marconi stations. That would be met by intercommunicating stations on foreign soil at various points, would it not?—It would not serve the whole of the English Channel, or at least of the British Isles, because ships going to Liverpool would have very great difficulty in communicating with France and ships going to Glasgow.

3115. I am speaking of German, Belgian and French stations?—Yes.

3116. As regards the principal of intercommunication you have already admitted that, have you not, by your agreement with Holland?—That was a contract made for a particular purpose with a country which does not have patent rights, and I think which concerns a restricted service—not general intercommunication.

3117. Under the agreement is not there general intercommunication?—I do not know the agreement; I have not seen the agreement.

3118. And the same with Belgium; have not you got an agreement with Belgium under which you admit intercommunication; you do not know perhaps?—I do not know.

3119. You spoke just now about the question of patent rights. There, again, have not you an arrangement with Belgium in regard to intercommunication; or, rather, I will put it in this way: suppose the Belgian Government adheres to the International Convention, are you not bound under any agreement to intercommunicate?—I cannot answer that question, because I am not familiar with those agreements.

3120. You cannot say also as regards the Argentine?—I cannot say in regard to the Argentine; I have not seen those agreements.

3121. How far is your system available in the case of what we may call cargo boats and tramp steamers?—I think it is available if they find it desirable to take it up.

3122. But I take it that at present, with your present system of organisation, you insist on the system being carried out on board ship by your own operators, do not you?—We find that it is necessary to insure efficiency.

3123. That, of course, makes it somewhat costly for these smaller ships, does it not?—Yes, it does.

3124. Does that to a large extent cut out the opportunities of cargo boats and tramp steamers?—No; I think we are prepared to make arrangements with tramp steamers and cargo boats because they do not require to do a great business with passengers' messages.

3125. You mean to say they might carry it out themselves?—Yes, when trained and properly instructed.

3126. Would not that to a certain extent interfere with the point I raised with you, I think, and Mr. Cuthbert Hall, namely, the position you control? I understood the chief objection you found to the Convention was that it would not be all under one control, but that there might be a division of control. If you allowed these ships to have their own operators would not that arise?—They would have to work according to certain rules and regulations which we should get the shipowners to accept.

3127. So they would under the International Convention, would not they?—They would under

Mr. Sydney Buxton—continued.

the International Convention, but I do not believe that an International Convention can exercise the same control over shipowners as a private company can that can withdraw its apparatus.

3128. Did you hear the evidence of Mr. Phillips just now, the Chairman of the Royal Mail Steam Packet Company?—I came into this room when Mr. Phillips was finishing his evidence. I heard what was said then.

3129. He says, upon one of these two questions, that in consequence of the refusal of the Marconi Company to accept intercommunication his ships which carry De Forest apparatus are able to communicate in America, but are not able to communicate when they come over here because the Marconi Company refuses to intercommunicate with them?—He said it.

3130. Yes, would that not be so?—That is so.

3131. Is not that a considerable drawback to the advantages of the commercial system?—It is, certainly, but it is caused by the fact of patent questions not having been settled between the various inventors, and also due to the fact that the Marconi company does not believe it possible to carry out an efficient service with the co-operation of different users.

3132. Then your position would be that the only way in which it could be properly carried out is by an organised system of one company?—I say that it is impracticable at present to carry on an organisation or service with the co-operation of different users in an Art, or application of science, such as wireless telegraphy.

3133. You said you were in favour of free competition. Will you tell us how free competition would come in if one company, having acquired the most favourable stations, declined to intercommunicate or to have anything to do with the other systems—other companies?—I believe, speaking from the commercial point of view, that that is an instance of the advantages gained in free competition. I mean the Marconi Company were the first to put up those stations; it was open to anyone to put up stations before the Wireless Telegraphy Act was passed, and if they did get certain advantages by putting up those stations before anybody else had thought of putting them up, I think they should be entitled to the advantage they got by putting them up first.

3134. That may be an advantage to the Marconi Company; is it not a disadvantage from the general commercial point of view and the extension of general competition between wireless companies?—Well, I think the other systems or the other workers should have all the opportunities which are due to them to develop their systems and to put up their stations provided they do not interfere with the working of those established at first.

3135. You said in your examination that under the Convention it would be necessary to divulge the secret details of working or new inventions; but is not that expressly provided for by the Convention, that the only details to be given are general details which would divulge no technical question or secret question Is not that

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that provided for?—If I do not misunderstand you, I did not say that it was necessary to divulge, did I?

3136. Well, I took down your words. You did not wish to say that; you did not go so far as that?—I did not quite catch what you said I had said.

3137. What I understood you to say was that under the Convention it would be obligatory on each company or system, in case of a new invention or an improvement to divulge it?—No, I did not say that, I did not intend to say it. I said it was not obligatory to divulge improvements or modifications; but I think it would be found to make the working of the Convention very difficult.

Mr. Gwynn.

3138. You meant practically, did not you, that it would be difficult to work the Convention without divulging details?—That is it.

Mr. Sydney Buxton.

3139. Yes, but is not that specifically provided for under the Convention?—Under the Convention as it is, one is not bound to divulge technical secrets.

3140. Does not the Convention merely enumerate particular points and the simple points which have to be given. Would any of those necessitate the divulgence of technical secrets?—No, it does not require the divulgence of secrets.

3141. It is Article IV. of the Regulations?—I think I am aware of it. If the Regulations of the Convention are to be strictly adhered to it would not be possible—at least it would be difficult—for one concern to introduce important improvements in its particular apparatus without divulging all these improvements to the other users who are using wireless telegraphy together with it.

3142. Why?—It is provided in the Convention that it is not obligatory to divulge these details; but still it is impossible to co-operate and to work a joint system with others, if somewhat important modifications or improvements are made in one station and these modifications and improvements are not communicated to the other users.

3143. Does not Article IV. of the Regulations fix specifically the only particulars that need be divulged?—Certainly; but I do not think, Sir, that you have quite got my point.

Sir Edward Sassoon.

3144. You mean that the non-communication of these particulars would prevent the technical working of the Convention?—Yes, that is it.

Mr. Sydney Buxton.

3145. You mean unless they were divulged the Convention could not be worked?—I mean in order to intercommunicate and carry out the spirit of the Convention it would be necessary to communicate improvements of different kinds to the users from time to time.

Mr. Sydney Buxton—continued.

3146. One word in regard to the Colonial position. I understood you to say as regards Newfoundland, which of course is well known to have Marconi stations there in connection with the Government, and in regard to the Canadian Government also, you have a considerable number of Marconi stations. Are you aware that the Canadian Government have just lately given a licence to another system—the De Forest system?—I am not aware, but I understand it from you.

3147. As regards the position of the other Colonies I think you suggested or implied that the Colonial Office had hampered the introduction of the Marconi system there, and I think you went on to say “at the instigation of the Post Office,” but how have they hampered it—whether it is at the instigation of the Post Office or not, in what way have they hampered the introduction of the Marconi system?—My belief is that they have written to the Colonial Governments asking them to postpone any arrangement with the Marconi Company if possible.

3148. Is it not rather the other way round, that these Colonial Governments do not desire to agree to a contract which binds them for good to a system which will not intercommunicate?—That is not the case according to my understanding of it.

3149. You have not yourself seen it; you were not there yourself at the actual suggestion of the Colonial Office to the Colonies?—I can state this: I do not like going into private conversation, but at least one Colonial Minister has stated to me that he had received a communication from the British Government asking him to carefully consider, or submit, or postpone, if possible, entering into any agreement with the Marconi Company.

3150. Or perhaps suggesting that they should be careful before they tied themselves up completely to a company that would not intercommunicate?—Yes. I do not know that the point of “not” intercommunicating was put before them at the time, but I know a responsible Minister of a Colony privately told me he had received a communication to that effect.

Sir Edward Sassoon.

3151. Coming back to the question of Canada, assuming your impression to be correct—that they allow themselves to be influenced by the action of the Home Government—do you think that otherwise they would have preferred to retain the *status quo*?—Canada?

3152. Canada?—In Canada we have got a contract. We have got a contract already, but I do not quite know what influenced the communication.

3153. This is exclusively “Marconi”—Canada?—Yes.

3154. At present it is?—Yes.

Mr. Sydney Buxton.

3155. Except this new station?—Except this new station.

Sir Edward Sassoon.

3156. There is no monopoly?—I only said we have got an agreement with Canada.

5157. I

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Mr. MARCONI.

[Continued.]

Sir Edward Sassoon—continued.

3157. I always understood that the Canadian Government were rather enamoured of your system, and that they were trying to support it as far as they could and protect it from possible disturbance. That is why I asked whether the fact of the Home Government, according to you, influencing the Canadian Government had any effect upon their giving the contract to the De Forest?—Well, it possibly may have had, but I know that the attitude of the Home Government is not very favourable to us in the Colonies—so I am informed; therefore it may have had an influence that way.

3158. What is the longest distance that your organisation has ever sent a message to?—3,000 miles.

3159. Has that ever been approached by any other organisation?—I do not believe it has been.

3160. Will you tell the Committee how far they have been able to communicate?—Other organisations?

3161. Other organisations?—I would rather not state that to the Committee, because it is a matter with which I am not very well acquainted. Statements are made that very great distances have been covered by others; but I have got no record that I can turn to of any authentic message being sent over that distance; while in my case I have sent numerous messages over that distance, one of which was from the President of the United States to His Majesty the King in England from Cape Cod.

3162. That was from coast to ship?—No from coast to coast.

3163. 3,000 miles?—3,000 miles.

3164. You are not able to maintain that achievement?—No, there were interruptions in it.

3165. Has that been caused by anybody's interference?—No, not at all; it was caused by the power for the distance not being sufficient.

3166. I understand from your examination in chief that you practically agree with the view of Mr. Hall as to the practical impossibility of co-operation and intercommunication from the commercial point of view?—Yes.

3167. Assuming your apprehensions to be justified as regards possible disturbance, do not you think that there would be far greater disturbance if you allowed different systems to live upon a fighting basis than if you attempted by regulations to bring about a certain state of harmony?—I do not agree with you that it would be possible to bring in a state of harmony because it means a patent war all round—a patent litigation, I should say, all round. It is a great pity that wireless matters should not be on a more friendly basis, but I think that is inevitable. I think whether there is a Convention or whether there is not a Convention there would be that state of things to contend with.

3168. Do you agree with Mr. Babington Smith that all inventors of wireless telegraphy are involved in the Convention?—No, I do not agree to that; and I might say something on that matter. I have got a communication here, which I will ask leave to bring before the Committee.

Sir Edward Sassoon—continued.

3169. Have you any experience as regards maritime services using your system?—Yes. I have got the experience of the Marconi organisation and of the Italian Government in various parts of the world, in Italy and its Colonies.

3170. Have you any exclusive contract with any shipping company?—The Marconi Company has several exclusive contracts which I can mention.

Mr. Lambert.

3171. I think I understood you to say that the Convention would impede the science and art of wireless telegraphy?—I believe it would impede the progress of the science.

3172. And is the science in its infancy now?—Yes. I consider it is in its infancy in respect of what has been done in practical application.

3173. You think there will be many improvements in the future?—I consider there will be many improvements in the future, and also there will be occasion for alterations of general views as to the principles of wireless telegraphy.

3174. Why should the Convention exercise this impeding effect?—By causing, I should say, a disability, or an impediment to a certain extent to the adoption of systems which differ very much from those contemplated under the Convention.

3175. Would all systems be worked under the Convention?—I should say no; because it is not proved that different systems can inter-communicate. It is assumed that they can, but it is not proved that they can. For example, the Italian Government has got a contract with me and with my companies which contains certain non-communicating clauses, but it has the right to communicate between military stations and men of war of other nations whatever system is carried by these ships. Now, on various occasions German ships, fitted with the Telefunken apparatus, have been in the Mediterranean, and, in accordance with their powers, have communicated, or attempted to communicate, with these Italian stations, and I have got an official letter from the Italian Minister of Marine, dated the 19th April, 1904, in which he states that certain Italian stations have endeavoured to communicate with the German fleet, which carries the Telefunken apparatus to certain German warships which it mentions, and that the communications were only possible to a distance of about 13 miles from the station, and that the communications were not satisfactory.

3176. Would that be communications between the Marconi installation and the Telefunken installations?—Exactly.

3177. And did both operators endeavour to communicate?—I understood both officers did endeavour to communicate, because the operators of the Royal Navy of Italy have instructions to try and communicate with warships of all nations, and I might say that the German Emperor was on board one of these ships, and no doubt every effort was made to communicate.

3178. When

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Mr. MARCONI.

[Continued.]

Mr. Lambert—continued.

3178. When was that?—The date of the letter is 19th April, 1904; and I should say it was in the spring; but the letter does not specify the exact date. It was during the spring of 1904. I was also informed by the same communication from the same Government that the communication was carried out at the express desire of the German Emperor.

3179. That is to say the German Emperor wished to communicate or to ascertain whether communication could be made between the Telefunken system and your system?—Exactly. At least he wished to communicate between his yacht and his squadron of warships and the Italian stations in the Mediterranean which were equipped with the Marconi system.

3180. You say they could only communicate up to 13 miles?—Twenty kilometers is the exact statement, which I think is about thirteen miles.

3181. Have there been any improvements since then?—I have had no communication since then from the Italian Government about these communications with other systems, and I do not know that there have been any improvements, so far as rendering intercommunication more easy is concerned. I think the Germans knew perfectly well the wave length used by the Italian stations, because they could measure it on their own ships.

3182. What technical difficulty is there in the way so that you can communicate 13 miles but cannot communicate, say, 130 miles?—There must have been something in the nature of the apparatus of the kind which I alluded to before in my examination. These may have been tuned to the same wave lengths, but the particular arrangements used by the different stations may have been such as to make the communication, as stated in the official letter which I can produce, inefficient.

3183. Communication between two systems 13 miles apart rather implies that it may be so improved that it may communicate say up to 130 or 650 miles?—Provided the so-called two systems work along certain technical lines, but supposing the technical developments of the two systems, instead of running along parallel lines, or converging, diverge, then the intercommunication will be more difficult. That is what might occur.

3184. Did this attempt at intercommunication injure your system at all?—No, it did not injure my system at all, because the Italian Government stated that they were anxious not to intercommunicate, and wrote me in their official letter to that effect. They were anxious rather not to be troubled by foreign stations which did not belong to their organisation or to their Navy, and wrote me another letter, which I can quote.

3185. But I thought just now you said that every effort was made so that intercommunication should successfully result?—Every effort was made to please the German Emperor, no doubt as a matter of international courtesy, but I do not think that the principle of intercommunication was desired by the Italian Government, according to the letters they wrote me.

3186. I understood you to say that the Convention would tie up the progress of wireless

Mr. Lambert—continued.

telegraphy in iron swaddling clothes?—Yes something like that.

3187. Do you believe in equality of opportunity in wireless telegraphy?—Equality of opportunity. Well of course inventors' rights have to be respected according to the interpretation which is given to those rights by the Courts of Law in the various countries.

3188. But from a purely scientific point of view, you would think that equality of opportunity is desirable?—Certainly; I am strongly in favour of it.

3189. That, possibly, might conflict a little when it was considered from the commercial point of view?—Yes, from the commercial point of view I consider that each commercial undertaking is entitled to hold what it has got.

3190. That might be a little antagonistic to the principle of equality of opportunity with regard to improvements, might it not?—They are two absolutely different cases. I stated truly that I would like the freest opportunity for every system to develop. At the same time, looking at it from a commercial point of view, I consider that if a commercial advantage is gained that should be maintained.

3191. You have a system, have you not, from a station in Holland which does inter-communicate?—I do not know what the contract with my company is with the Dutch for this station. I do not know whether it is general inter-communication or restricted inter-communication.

3192. But if you have a communicating station there, fitted with your apparatus, there could be no reason why there should not be other communicating stations fitted with your apparatus, could there?—I have already given one reason why the case is different—due to the fact that there are no patents in Holland.

3193. That is a purely commercial reason, is not it?—But then the other reason is that the station in Holland is the only station there, and it does not mean that there must be intercommunication everywhere. No doubt my company did arrive at a satisfactory agreement upon that point but it ought not be considered to be an agreement for every possible case of intercommunication which might arise.

3194. May I pursue this, first from the scientific point of view, upon which, of course, you are such a distinguished exponent. If you have one station which intercommunicates, there will be then no difficulty from the scientific point of view, or from the technical point of view, of all stations intercommunicating?—I cannot say that we have one station that intercommunicates. The station in Holland, I believe, is not our station.

3195. I beg your pardon. I thought it was, but if it is not your station I will not pursue it?—I do not think it is our station. I think our stations have agreed to speak to that particular station. I may be wrong and may be corrected, but I do not know if the station in Holland is our station.

3196. Can you give us any reason why the shipping companies, Lloyd's and other people, are all in favour of the principle of intercommunication?—Perhaps you will allow me to state that I differ from the statement which you have put in your

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[Continued.]

Mr. Lambert—continued.

your question, because one of the greatest shipping companies of Great Britain—the Cunard Company—have, I believe, written saying they were in favour of non-intercommunication. I believe, also, the Allan Line have written to some authority with reference to the matter.

Mr. Sydney Buxton.

3197. Are you aware that the Allan Line have withdrawn their objection to the Board of Trade?—No, I was not aware of it. Also, with reference to the question of Mr. Lambert, I got information that Lloyd's entered into an agreement not to intercommunicate some years ago, and they stated various reasons in the preamble to this agreement why they considered that wireless telegraphy should be under the control of one organisation, such as Lloyd's. Is it suggested that Lloyd's have changed their mind on the subject?

Mr. Lambert.

3198. We have had a representative of Lloyd's here, and he was distinctly in favour of the ratification of this Convention. Of course, however, I do not wish to ask any question that you do not wish to answer or that you do not feel capable of answering?—I am only capable of answering this. The only fact that I know is that Lloyd's at present are bound, by an agreement with us, not to intercommunicate, and they stated in the preamble to this agreement that they believed in one control of wireless telegraphy—probably their own control.

3199. They gave evidence the other day that they did wish the ratification, presumably they have changed their view?—They have embodied that in an agreement so far. There is just a little note I made about this subject, if you will allow me to refer to it. I believe I am not wrong in stating that Captain Inglefield, the Secretary of Lloyd's, in answer to Question 2097, stated in his evidence that there was certainly no other organisation like the Marconi with whom Lloyd's could do business at present.

3200. As a matter of fact Lloyd's expressed their wish to have the Convention ratified?—So I understand.

3201. I believe you heard the chairman of a shipping company this morning express the same opinion?—Yes, I heard part of his evidence only, because I came in after he had started. I should also state, however, that my company has a great number of contracts with the leading shipping companies of the world, which contracts embody the clause of non-intercommunication.

3202. Your company rather carries into effect the principle of control, does it not?—Yes, it does as far as it can.

3203. That is your company is carrying out the Convention, as it were, in its own way?—It is carrying out the only method by which it deems it possible to make its organisation a success.

Mr. Sydney Buxton.

3204. I want to ask you a question with reference to what Mr. Gavey said, because I

understand you objected to the number of stations and so on given in the list which he gave. I should like to say on his behalf that that list was drawn up from the best accessible information in his possession in regard to the various stations, and the Marconi ones were taken from this pamphlet which was sent to Members of Parliament, dated 11th December, 1906, in which is given the list of the stations, ship and shore, by means of which the company carried on public telegraph service by means of wireless telegraphic apparatus and so on; and the list which Mr. Gavey gave was taken absolutely figure by figure from this list—that is, the information on which he based that list was information given in this pamphlet issued by the Marconi Company themselves. You do not dispute that?—I thank you for the information, but at the same time I might observe that it might have been more equitable to have included in the list given by Mr. Gavey only stations on other systems alleged to do commercial work.

3205. So they were, so far as his information went.—No, if you will allow me, there were a number of stations included in the list which were not doing commercial work.

3206. I understand the information was very difficult to get, but that Mr. Gavey got it as far as he could, and that the information with regard to the Marconi stations was information which he obtained from this official statement of your company?—I do not wish to enter into conflict on the point, but perhaps you will excuse me if I just make one remark about it. The only objection I had to it was that it was dated, I believe, the 27th of April, 1907.

Mr. Arthur Lee.

3207. I understand your attitude generally towards the regulations as proposed in the Convention is that they will be in the first place ineffective to carry out the purpose for which they were designed; and in the second place that if they were made effective to carry out the purpose for which they were designed they would cripple the scientific development of wireless telegraphy?—Yes.

3208. And, therefore, you object to them on both grounds?—On both grounds.

3209. I understand from a purely technical point of view you object to the regulations, mainly because you consider that the science is so much in its infancy that the attempt to establish a general control is premature, that it is impossible to foresee in what directions the art of wireless telegraphy will develop?—Yes, that is my opinion.

3210. For example, we have been told by some witnesses that they consider that the Poulsen system is the best system, though I do not expect you agree with that. We have also been told that that system cannot comply with the regulations, because it is impossible for it to intercommunicate, with, say, the Marconi system. That is the case, is it not?—So far as I am aware that is the case.

3211. Therefore that is an example of the development of the science in a new direction,

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[Continued.]

Mr. Arthur Lee—continued.

which is really not covered by the terms of the Convention?—Exactly. I have a system which will not intercommunicate with other systems at present, or cannot intercommunicate with systems at present in general use.

3212. And one which you think is an improvement over your existing system?—I believe it is an improvement over my existing system, and over other systems so far as I know them, and I think it is one which it would be desirable to adopt for the efficiency of the service.

3213. Therefore it is really these regulations which constitute what you called the iron swaddling clothes?—Yes. But if you should ask me to draft a set of regulations which should be applicable, I should say that I was unable to do so.

3214. You think it is too early to attempt anything of the kind?—I think it is too early—that the knowledge of those concerned, including myself, of the subject of wireless telegraphy is not sufficient to enable international legislation to be entered into without in some way hampering the progress of the art.

3215. In the meantime would you suggest that there should be no attempt at international regulation, but that there should be what you call free competition?—At present I should prefer that it should be left to the individual Governments to do what they think best in various countries. No doubt some agreement might be come to between the different Governments, or, as I stated, there might be various organisations working wireless telegraphy.

3216. You do not think to do that would bring about a great deal of interference between different systems?—Personally I do not believe much in interference. We have been very much threatened with it, and it is to my knowledge that attempts have been made to interfere with us in the United States, but those interferences have not resulted in any appreciable difficulty or in any effective difficulty in the carrying out of our business.

3217. It is, I suppose, a matter of more accurate tuning?—It is a matter of more accurate tuning, and the adoption of the latest improvements, which all tend to make interference more difficult.

3218. With regard to the particular position of Italy under this Convention, I understand that, owing to certain obligations that they have entered into with you, they are deferring the ratification of the Convention? Do you think that that will place them in a disadvantageous position as compared with us, for example, if we should ratify? It has been suggested, I may say, many times in evidence that if England should also defer ratification, she would be placed in an unfavourable position. Do you consider that Italy is placed in an unfavourable position?—I do not consider she is really, because she will have the freedom which comes from not adhering to the Convention. She will be able to go on developing wireless telegraphy in a free manner. I cannot express the views of the Italian Government in the matter, because I do not know them; but I do not think that what has been suggested would be the case.

3219. I suppose it may be some years before

Mr. Arthur Lee—continued.

she is able to ratify?—I cannot say offhand the exact year. I think it is in about 13 years. I am certain it is over 10 years.

3220. My point is this: Do you think that during that interval there is any reason to suppose that other countries who have ratified the Convention will adopt any measures against Italy, and boycott stations or anything of that sort?—I do not think that is, as far as I can understand, in the range of practical politics. I suppose the Italian Government would consider the case if it arose, and, as their adviser, I would consider it too; but I do not think it is likely.

3221. Then you do not think that there is any reason why England should not follow the example of Italy and withhold her ratification until such a time as it becomes more clear what scientific line the development of this science is going to take?—That course would be most judicious, in my opinion.

Mr. Sydney Buxton.

3222. With regard to the Italian question, is not there a special article in the Convention, or rather in the Protocol, which the Italian delegation have signed, which makes a reservation that the Convention can only be ratified by Italy after the date of the expiry of its agreements with Mr. Marconi; that is to say it agrees with the principle, but it is obviously bound by certain agreements, and therefore it is in the *bona-fide* position of desiring to ratify the Convention at the earliest possible moment?—That no doubt appears according to what is published there. But my view is that probably the disadvantages of the Convention may become apparent before that date is reached, and may perhaps cause a different view to be taken by the various Governments including the Italian.

3223. Quite so, but as I understand the point or Mr. Lee is this:—That the Italian Government have already said that they are unable to ratify at present, and that the English Government, if they decline to ratify will be, as regards other countries, in the same position that the Italian delegation are. The Italian delegation has given notice that in consequence of certain contracts it cannot ratify, but has expressed a *bona-fide* desire to do so. But the English Government if it now refuses to ratify will be going back on the signatures of its delegation and will be taking up a hostile attitude. Is not there, therefore, all the difference in the world with regard to the two positions?

Mr. Arthur Lee.

3224. My point was, not that they had refused to ratify, but that they had postponed ratification?—Yes.

Mr. Sydney Burton.

3225. Would not the question of the position of the English Government be very different from that of the Italian if the English Government now decline or postpone ratification?—I may state that I am hardly in a position to define what the position of the British Government is or may have been at the Convention.

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[Continued.]

Mr. Sydney Buxton—continued.

Of course I believe, if I have not read the documents wrongly, that the declaration was made by the chief of the British Delegation in Berlin, that whatever was discussed or agreed to between themselves there was subject to the approval of the British Government.

3226. That is understood?—But I do not quite know how to interpret what the position of the British Government is.

3227. My only point was that it appears to me that as regards the Conference the position of the Italian Government differs from that of the British Government?—That is possible.

Mr. Adkins.

3228. I understood you to say that your system has not suffered from confusion in practice?—No, that is my knowledge and my experience.

3229. And that applies even to the station in Holland with which your system has intercommunication?—I may state I have not information as to the station in Holland.

3230. At any rate no information has come to you that intercommunication with that station has caused confusion. You have not heard that it has caused confusion, have you?—No, I cannot say I have.

3231. What is the system of that station in Holland, do you know?—I do not know.

3232. I also understand your answer to Mr. Lee to be that you personally did not believe, or did not think, there was much serious danger of interference?—I think that what we might call the most advanced systems, or those which utilise to the utmost the recent progress of science in the matter, are not liable to any serious danger of that kind.

3233. Can you get rid of it?—You can get rid of it, or minimise it. We have had to face it in a very real manner in the United States. There is no wireless telegraphy Act there, and, in spite of the anxiety displayed by the delegates at the Convention of Berlin, no steps have been taken in the United States to put into force any control whatever of wireless telegraphy, not only internationally, but even nationally.

3234. If that is the case, and interference can be obviated by the skill of the operator, you do not feel obliged to lie awake at night in terror of a wireless war, whether the Convention is ratified by England or not?—No. I do not think there will be any effective wireless war.

3235. There may be differences, but the prospect of a wireless war does not depress you in any case?—No, it does not at all.

3236. May I ask you whether these are the stages by which improvements are developed by yourself and others—that they are first thought out, that they are then tried at experimental stations, and that they then become, in the judgment of the inventor, of practical and commercial value. Those are the stages, are not they?—No, I differ somewhat from that statement. Speaking from my own experience and the way I work out most of my improvements, they are applied to commercial stations for a certain time, and they are tried on a rather large scale with a great number of stations, on ships

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Mr. Adkins—continued.

and on shore, before it can be ascertained that the modification or the improvement is an advantage. I find in applying these improvements to actual practice that it is a great advantage to be able to try these new devices in actual practical use, and I hardly think that it would be possible with one or two, or a few, experimental stations to develop wireless telegraphy as rapidly as it is done now where a big organisation of stations is at one's disposal for doing so.

3237. Can you explain to us how the rule of general intercommunication would injure the development of these new devices and processes?—I think I have already mentioned that I had some doubts as to the possibility of being permitted to carry out experiments on ships according to the Convention.

3238. Then may I take it that your fears on this head depend upon your interpretation of the section of the regulations?—No. They depend partly on that, which is only a personal feeling with regard to the interpretation of the regulations, but they also depend on the general fears which I have expressed with reference to the detrimental effect of regulations of that kind on the advancement of the art and on the natural development of the science.

3239. Supposing the regulations are such as not to interfere with modifications in the use of your stations, supposing the view Mr. Buxton suggested is correct, that they do not interfere, is there any other danger left then, excepting possibly the danger of your inventions being discovered before you have obtained proper protection in the form of patents?—Will you kindly put that question in another way.

3240. Supposing that these regulations do not really interfere with your making improvements, what reason is there, excepting possibly the fact that a person who communicates with you may get to know something about those before you had patented them?—There are the general reasons which I have already expressed.

3241. But you cannot make them more specific for me?—Except on the general principle that I consider any international regulations at present would be detrimental.

3242. Then, with regard to the question of patents. I take it it has been the policy of your company not to take any steps to protect itself in the Courts of Law of Germany or elsewhere (although you are convinced that your inventions are being infringed) until such time as it becomes of great practical importance?—Not until such time as the application is such as to do us substantial commercial damage. I would like to add one word more in regard to that question. We have already undertaken patent litigation in the United States, which, in our opinion, has been successful.

3243. Is that the case we heard of against the De Forest Line?—Yes.

3243*. Has that resulted in abating undue or unfair competition with you?—It has resulted in an injunction being issued and a decision being given against them which we find certain difficulties in enforcing at present, due to the peculiarities of the American law.

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3244. You

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[Continued.]

Mr. Adkins—continued.

3244. You will agree with me that an injunction which you cannot enforce is rather like a law which is only on paper?—We hope to enforce it.

3245. Then the position is that you have got an injunction, but you have not really enforced it?—That is due to certain reasons.

3246. I understand you to say, in your judgment, there will be very extensive litigation with regard to patents whether there is a Convention or not?—Yes, that is correct, but if you will allow me to go back to the question of litigation in the United States for a moment, I believe I am right in saying that the company against which we took proceedings are being liquidated or dissolved, and we have had some difficulty in enforcing the decision against their successors.

3247. From this point of view as to litigation with regard to patents, which we should all probably agree is inevitable, what difference will the Convention make?—The Convention will make it certain, and will extend the patent litigation to almost every system and every country, whilst if the Convention does not come into operation, the litigation will probably be more restricted, as it is at present.

3248. You agree that there will be litigation in any event—Convention or no Convention?—Yes.

3249. But you think it will be more restricted without the Convention?—I think it will be more restricted without the Convention. I think the fact of there being bound to be a great deal of litigation if the Convention comes into force, will, taking human nature to be what it is, tend to make cordial co-operation or intercommunication between those systems which are fighting in the Law Courts very difficult.

3250. Do I understand you to go so far as this, that where you have a Convention binding upon the subjects of all countries taking part in it, that will not help intercommunication so much as letting everybody do as they please, and that there is the prospect, with the Convention, of more litigation?—That is my view, because I think it will be found that these differences will adjust themselves according to the interests of the various people concerned.

3251. With regard to the new scientific element called amplitude: supposing you are at a shore station filled with one of your receivers, and supposing that within range of that receiver there are two ships, we will say, who are both using the same length, will the question whether you receive a message from them depend upon whether the amplitude is the same in each case?—It will depend on that to a great extent.

3252. Supposing that you have one of your ships fitted with your apparatus coming within range of one of your shore stations, and, owing to your regulations, you know that they will use not only a particular wave length but a particular strength of amplitude, and supposing that another ship is sending the same wave length but with different amplitude, would that interfere with the message from the first?—In certain cases, according to the receiver I use or in use, I would receive one of the messages and not the other.

3253. And in other cases you would receive

Mr. Adkins—continued.

both—the one disturbing the other?—Yes, in other cases I might receive both, each disturbing the other.

3254. Is amplitude controllable as thoroughly as wave length?—I believe it is.

3255. Then if amplitude is controllable the fact that amplitude ought to be considered as well as wave length does not really seriously affect this problem, does it; because regulations would ensure that amplitude was controlled with the same uniformity as wavelength?—That would be bringing in another control. I am already of opinion that wave length should not be controlled yet. But I might perhaps deal with this point still further, and say that there may be systems which are not dependent for communication even on the question of amplitude and wave length. I may get a combination of two wave lengths producing a certain effect.

3256. I only wanted to understand how far amplitude was a controllable element and how far it affected the receipt of messages?—I believe it is controllable at present.

Mr. Macpherson.

3257. In your evidence in chief you said, as I understood you, England had everything to gain and practically nothing to lose, by refusing to ratify the Convention. Would you kindly enlarge upon that and explain what we are to gain if we do ratify?—I think I have explained rather at length what I believe this country has to gain if she does not ratify. In ratifying it might gain certain advantages—it might please the German Emperor—or the German Government; there might be certain political considerations in the matter; but with these I have nothing to do. Speaking, however, from a technical, and, so far as my knowledge goes, from a commercial point of view, I am afraid that England has nothing to gain at present by joining the Convention, unless, as I have stated, there may be political considerations.

3258. I suppose it would be a very serious thing for the Marconi Company if we ratified this Convention, though do not answer that question unless you like?—I think the Marconi Company would consider that it would be very unfortunate if it were ratified.

3259. Then, apart from technical grounds, upon which you have been pretty severely cross-examined, and apart from commercial considerations, as to which you think we can gain nothing, you think that it would be detrimental to us, inasmuch as we should be playing into the hands of certain people or of a certain section of the people?—That is how it appears to me at present if you ask me to state my opinion.

Mr. Gwynn.

3260. I wish to ask you a question which Sir Edward Sassoon has been anxious to have put again. Do you agree that all wireless inventors are in favour of intercommunication?—I think it has been stated by one of the witnesses here, I think by Mr. Babington Smith, in answer to a question, that my company was the only organisation working wireless telegraphy which

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Mr. MARCONI.

[Continued.]

Mr. Gwynn—continued.

was opposed to the principle of intercommunication. I am rather surprised at that statement because I believe the Post Office was in touch with at least one inventor who has been licensed by the Post Office and who is not in favour of intercommunication.

Mr. Sydney Burton.

3261. What date are you speaking of?—I do not know what date the licence was issued, but I believe it was issued. It was a licence for the station at Macrihanish, in Scotland.

3262. That is shore to shore?—I believe they have been sending it to ships also.

3263. What are the terms of that licence?—I do not know the terms of the licence. Perhaps you will correct me. Professor Fessenden wrote a letter to the London "Times" dated 25th February, 1907, putting forth his reasons why the Convention was detrimental to the art of wireless telegraphy and why the Convention should not be ratified. So far as I know the "Times" did not publish this letter, and, although I have no connection whatever with Professor Fessenden, and no partnership with him in any way, and have only met him once in my life, I believe, he has sent me a copy of this letter. He is an American inventor, who is licensed by the Post Office for a certain station near Macrihanish, in Scotland. He says, "Considering the matter solely from the standpoint of the interest of the public, the proposals of the International Radiotelegraphic Convention should not be put into effect for the following reasons: (1) They are not practicable. (2) They would practically put an end to the development of wireless telegraphy. (3) It is unnecessary legislation. As regards the first point, what the proposals mean will be better understood by considering the result of a passage of a law to the effect that all stations of the Post Office Authorities should be capable of directly communicating with one another. Since telephones cannot intercommunicate with telegraph or Wheatstone transmitters, with typewriter telegraph the result would be that all Post Office equipment would have to be reduced to a form which could be used in the outlying districts—that is all telegraphic improvements would have to be abandoned and the Post Office would have to come down to the simple recorder and manually operated key. The case is on all fours as regards wireless telegraphy. There are a considerable number of systems of wireless telegraphy which cannot operate one with the other. For example, we have: (1) The original spark and coherer method with which Marconi has achieved such remarkable results, dating from 1896. (2) The singing arc continuous radiation method, patented by the National Electric Signalling Company, 1902 and 1903, which has recently attracted considerable attention in Europe. (3) The revolving field or condenser dynamo method, dating from 1899. (4) The singing arc with group frequency method, dating from 1901. (5) The heterodyne method, dating from 1903. (6) The wireless telephone, dating from 1901, which was first put on the market in 1904. (7) The secret wireless method by which

Mr. Sydney Buxton—continued.

messages can be sent without other stations being able to read them. (8) The ship-localising method for locating the course and distance of approaching ships. It will be obvious that the wireless telephone cannot intercommunicate with the Marconi spark and coherer system, or the latter with the heterodyne system. If the proposals of the Berlin Convention are put into effect only one of these systems could as a rule be used. Suppose a spark system was chosen. Many captains would prefer a telephone, for the reason that the range of the telephone—150 miles—is sufficient for most practical purposes and does not necessitate the carrying of a telegraph operator, as the apparatus can be handled by one of the ship's engineers with a little practice. (At a recent public demonstration attended by representatives of the General Electric, Bell Telephone, and other companies of the operation of the wireless telephone there were no telephone operators at either station, the transmitting apparatus being in charge of engineer apprentices who knew absolutely nothing about electricity.) Again, the operators on some ships might prefer to use the heterodyne system, because, by its means, it is possible to "break" the messages and also to communicate with more than one station at the same time, and system is not affected at all by atmospheric disturbances or interference and can work over much longer distances and can be used with a call or recorder. On the other hand, if the heterodyne system were chosen, there is no question but that many shipowners would have reasonable grounds for objections, as the apparatus is considerably more expensive than the simple spark apparatus, and for many purposes the spark method would be amply satisfactory. It will be seen from the above that the proposals are absolutely impracticable unless all the advances which have been made in the last few years, and which are now being made, are to be abandoned. As regards the second point, even we Americans realize that standardization has its limitations, and when carried to excess puts an end to development. Consider, for example, what would have been the effect on development of Mercantile Marine if twenty years ago a law had been passed requiring all steamers to be equipped with engines of the same size and type, so that in case of breakdown spare parts could be obtained from passing vessels. Or consider the architectural paralysis which is found in cities where municipal regulations limit the height of buildings, and where square mile after square mile of houses indistinguishable from each other, except by slight variations in their stucco ornaments, indicates that the landlords having found that type of building which gives the most return for the least construction cost have now no incentive to depart from it. Moreover there is no necessity for the legislation, as the matter is one which will settle itself. The fact that insurance underwriters will charge lower premiums for vessels equipped with suitable wireless apparatus, and that passengers will naturally prefer to travel on vessels equipped with some means whereby they can maintain communication with shore, will be sufficient incentive with shipowners

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Mr. MARCONI.

[Continued.]

Mr. Sydney Buxton—continued.

shipowners to equip their vessels with apparatus capable of maintaining communication as far as it is necessary or advisable. Nothing could be more harmful to the development of wireless telegraphy than hasty or unconsidered legislation. In addition, when legislation comes, if it ever comes, the regulations should be drawn up with the cognisance and advice of various companies interested in developing the art. One of the reasons why the proposed regulations of the Berlin International Radiotelegraph Convention are of such an impracticable nature is the fact that they were drawn up by members, who, in the case of the United States Commissioner at least, had taken no pains to ascertain from the wireless companies what was practicable and what was not. It goes without saying that any legislative proposals, to be practicable and serviceable, must be drawn up after full and complete consultation with those interested in the development of the art, and acquainted with its possibilities. I have no hesitation in saying most emphatically that the interests of the general public will be best served by abandoning all attempt at the present time to enact any such regulations as the proposals of the Berlin International Radiotelegraphic Convention. As further showing the injurious effect of unnecessary legislation, I am able to state of my personal knowledge that even at the present time there are quite a considerable number of wireless inventions of the very greatest public importance which have not been developed or put out for the use of the public on account of the fact that the regulations already in force are of such a character as to render it impossible to develop them commercially until the restrictions referred to are removed. (Signed) REGINALD A. FESSENDEN."

Chairman.

3264. In what capacity does he speak?—He speaks as an inventor—as a worker in wireless telegraphy and, as I believe, a Director of the National Electric Signalling Company of the United States.

3265. It is just the individual opinion of an individual inventor?—Yes; but I believe he gives the opinion of his company, because he has a controlling interest in it; and I should also state, that, though I do not exactly agree with everything he says in the letter, I agree with his point that the Convention at present is undesirable.

3266. Has he invented a system?—He claims to have invented a system, or several systems, of wireless telegraphy which present particular advantages.

3267. Have you a high opinion of these systems?—I have not had the opportunity of testing them. If I had I could speak about them.

Mr. Gwynn.

3268. Would it meet your case, and would it remove your objections to the Convention, if all the Marconi stations in Great Britain and the British Islands were made exempted stations—that is to say were exempted from the obligation to intercommunicate?—I should say it would not. The Convention has been framed in such a

Mr. Gwynn—continued.

fashion that shipping companies, and particularly foreign shipping companies, whether they want it or not, will be driven to take the Convention service.

3269. You think they will be absolutely driven to?—Yes.

3270. On the other hand, supposing England should refuse to ratify, what would be the position?—Then my opinion is that a number of the other countries will also refuse to ratify. I am certain that Italy will refuse to ratify.

Chairman.

3271. She refuses to ratify, at present, does not she?—Yes.

Mr. Gwynn.

3272. Is it not that she cannot ratify rather than that she refuses to ratify?—Italy is one, and I believe some others will refuse to ratify. But, of course, that is only a personal belief.

3273. You have no grounds for suggesting it; it is only a personal opinion?—I cannot state any grounds, or repeat any conversations I have had on the subject; but my belief is that.

3274. It has been said that your company is a foreign company. Are there any foreigners on the directorate?—I should say that the only foreigner on the directorate is myself, that is on the parent company. The International Company has a cosmopolitan directorate. Pursuant to a desire to carry out an all-British policy, in which they were encouraged by the Admiralty, the parent company bought up all the shares in the International Company, and has absolute control over it. It has also formed a number of associated companies in Canada, the United States of the Argentine, and Belgium and France, and of those companies the parent Marconi Company—of which all the directors are British except myself—has a stock or share control, having a predominating voting power at a meeting of shareholders.

3275. Supposing the British Government ratify this Convention, what line will your company take?—That would be rather a matter for their future decision, I should say; but there might be two cases open to them which occur to me. One is that they might not consider themselves bound to intercommunicate according to the interpretation given by certain legal advisers to their contracts, and they might try to fight out that point, and proceed, under the Patents, against anybody working wireless stations in British territory, supposing that those stations infringe their patents. Or, another scheme that has been spoken of is to accept the offer made by a foreign syndicate to buy up the controlling interest in the International Company—that is, buy the shares which my company holds in the International Company, which is doing most of the shipping work. The Marconi Parent Company now holds the majority of the shares in this International Company, and we could sell this majority-control to the syndicate which is anxious to acquire it; and its policy, of course, would be presumably dictated in the case to which I am alluding, by a Foreign Directorate, which might, in carrying out this policy, secure the

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[Continued.]

Mr. Gwynn—continued.

the support of its own Government. Those are the two cases that might arise.

3276. In the latter case, the control of the entire organisation would rest in foreign hands?—In the case which I am contemplating it would, supposing the Foreign Syndicate bought this controlling interest which might be very desirable for them.

Chairman.

3277. Can you say which country it is?—I cannot say that.

Mr. Gwynn.

3278. You merely state the fact that there has been an offer before you?—Yes, that is correct.

3279. I gather, from an answer you gave to Mr. Adkins a short time ago, that, in your opinion, the state of chaos which is said to exist is, not so chaotic as it has been represented?—Yes, that is correct. I have every opportunity of watching the working of numerous ships which belong to the organisation controlled by my company. I have the opportunity of knowing everything the Italian Government are doing at their stations. I have the opportunity of listening to the transmission of messages at stations, and, honestly speaking, I do not admit that any material interference exists at the present time with the working of our stations.

3280. Was your attention called to some evidence of Lieutenant Loring, in which he detailed the number of messages that you could hear simultaneously at Dover, and the confusion of traffic that arose from these?—I did notice Lieutenant Loring's evidence on that point, and I should say it appears to me that he was not trying to exclude messages, but that he was trying to get them. I mean that he was not in any way trying to exclude various messages which might have interfered with any work of the Admiralty stations which he was working at; he was trying to get everything he could get, if I understood his answer to the question. He also made certain other remarks about the repetition of messages at our stations. I hope he is really certain that they were the Marconi stations which he heard repeating—that they were not some other stations. He states in his evidence he heard so many other stations that it may have been some other station repeating. I do not wish to doubt his skill in the matter, but still I would like to put that to him.

3281. Do you think that his answer in the matter produced the impression of more chaos than usually exists?—I believe that is the case. I think I have had at least as much experience as Lieutenant Loring in the working of these stations, and though I must state that I have not often been present or near to these stations at Dover to which he refers, I have been present, and close, and in touch with stations such as the Lizard and Brow Head, where the largest amount of commercial work is done; and I have not experienced, at those stations or at other Marconi stations, any considerable interference, or any, I might say, material interference with

Mr. Gwynn—continued.

the working of the stations. I would like, if you will permit me, to make another reference. Lieutenant Loring said something about the language of the operators. I do not think that refers to our operators; but is it entirely correct? It might occur. But I might state also, with your permission, that I can say I have heard Naval operators using very bad language occasionally.

Chairman.

3282. You say the interchange of messages between Brow Head and the Lizard are more numerous than they are at Dover?—Very much more numerous; and they are also of a commercial character. There are, practically, no experiments going on in that district, and no testing or conversation.

Mr. Gwynn.

3283. I think Lieutenant Loring said reporting got heavier the further you got West?—He is in agreement with me about that point.

3284. Have you noticed Sir Oliver Lodge's statement that a station within range of messages—a station which is capable of receiving a message—need not be inconvenienced by it unless the interruption is very violent?—Yes, I have seen that statement.

3285. Did you also see Mr. Maskelyne's evidence, in which he said a ship using five kilowatts of power, within a few miles of a coast station, would throw that station out of work for the moment?—It would, certainly, if the station happened to use the same arrangement of wave length, amplitude, and all the rest. But, supposing I were free to use the arrangement I thought best at the shore station, I think I could almost immediately prevent any interference.

3286. What has been your experience at the Lizard and Poldhu?—I found—and I state definitely because I see some other witness expressed some doubt about it—that the Lizard can receive from a ship whilst Poldhu, which is seven miles away, is transmitting, with a power sufficient to effect a receiver 1,000 miles away. And not only that, but I can state that a station in the same field as Poldhu is—that is from 50 or 60 yards from the Poldhu station—can receive a message from a different station when Poldhu is transmitting to another station about 200 miles away. So that, if my methods are adopted at two stations, and I have control of the arrangements, it is possible to have two stations in the same field so to speak without mutual interference—each working independently of the other.

3287. So that, practically, you think that you could cut out almost any reasonable attempt at disturbance?—Yes, especially if it were caused by a ship; because it is not practicable for a ship to carry any very elaborate transmitting apparatus.

3288. To what do you attribute the position that your company now admittedly holds?—I attribute it to the fact that, as stated by so many of the Government witnesses, they were first in the field in the application; that they were working

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[Continued.]

Mr. Gwynn—continued.

working wireless telegraphy in England when nobody else was working it. That has been confirmed by the witnesses from Lloyd's and from the Post Office. And also I attribute it to the fact that they have adopted the only possible method for organisation of working which will enable wireless telegraphy to be utilised on a large scale for ship to shore communication. I might also add that probably—I am speaking personally, and therefore I should not say too much on that point—but possibly as to some of the technical devices or arrangements we were in advance of others—I mean that seems to be borne out by the contracts which the Admiralty, the Board of Trade and Lloyd's, have entered into with my company.

3289. That is to say, you claim that you were the first to create a working organisation, and that in the matter of technical appliances you continue to hold that superiority?—I believe that is true.

3290. But in the matter of technical appliances you have always had competitors, have you not?—Yes, there have been a great number of competitors and would-be competitors, people who have stated, as they have stated here, that they are very anxious to do business if they were given an opportunity.

3291. Have there been any competitors in the matter of organisation?—I believe there have not been any competitors in the matter of organisation. The German company, which has been cited as our chief rival, has not organised the business on the lines on which we have organised it. They endeavoured to sell apparatus to ships without in any way endeavouring to regulate the working of the system; and the result has been that, in order to get any organisation at all, they have been compelled to employ the friendly services of their Government in trying to get a position which they were not able to obtain in open competition.

3292. And, to create an organisation, involved a great deal of capital, did it not?—Yes, a very great deal of capital has been expended by my company. I think it is generally known, and it has been testified to by other witnesses, that they went to the expense of putting up stations round the English coast, and round the Irish coast, and other coasts, before ships were fitted, for the purpose of establishing this organisation, and installing this exchange by means of which ships should be able to carry on a telegraph business.

3293. Do you attribute your position in any degree to the special advantages conferred upon you by the Government?—No, I do not. I have stated my early relations with the Post Office. I think, though I may be wrong and may be corrected, that it has been stated somewhere that our stations were licensed because they were the only stations there. Mr. Babington Smith stated that the Marconi Company was the first in the field, and that they organised a service. And I think it is due only to these facts that they have obtained this predominant position of which you speak.

3294. When you established your first stations—that is, previous to the Wireless Telegraphy Act—it was equally open to anyone else to establish wireless stations in this country, was it

Mr. Gwynn—continued.

not?—Yes, I want to state emphatically that it was, although at least one other witness has stated that it was not. And I wish also to state that it can be proved that several responsible Ministers of the British Government have stated that it was free and open to anyone to establish wireless telegraphy stations in England, to communicate with ships outside territorial waters, before the passing of the Wireless Telegraphy Act.

3295. Had you any guarantee of assistance from the Post Office giving the right to make an arrangement for communicating your messages by land?—I am speaking, of course, as one who has been in a certain degree detached from these negotiations, because I was carrying on technical work, but I should state that, so far as I am aware, the company had some difficulty in the beginning in inducing the Post Office to connect up their shore stations.

3296. You had no guarantee, in fact?—We had no guarantee that we should be connected that way, if we established these stations.

3297. Now let me put to you a hypothetical case. Supposing Great Britain were (1) to refuse ratification, and were (2) to leave the Marconi Company entirely free to carry out its own policy, that is to continue to refuse intercommunication, but (3) supposing at the same time the British Government were to grant licences to other British or Foreign Companies to erect intercommunication stations on British coasts and in British territory, wherever openings for them existed, would your company have any objection to make to such a decision as that?—I think not. I think it would have no objection to that course. I mean, of course, subject to patent rights, and those questions which would be settled in another way.

Mr. Sydney Buxton.

3298. I understand you to say that you would have no objection to the position of the Marconi Company if the Government did not ratify the Convention, but they were to allow freely licences in suitable places to other companies to erect stations which would intercommunicate—the Marconi Company retaining its right of non-intercommunication. You do not object to that?—What I stated was supposing the English Government does not ratify, and, of course, the stations of other companies would be subject to the conditions imposed upon them by the Post Office.

3299. Yes, under the licences. Yes.

3300. That being so, what would be your objection to a system under which the Government of Great Britain, having ratified, allowed other systems to open stations at convenient places under licences for intercommunication, exempting the Marconi stations, under the Articles of the Convention, from the obligation to communicate. Would you have any objection to that?—Yes, I would, because the fact of the British Government joining the Convention would be, as I have already stated, according to my personal belief, that all other nations would ratify, and that a great number of the foreign shipping companies would have to work under the Convention rules, and would, of course, communicate

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municate to those stations which would be erected by the Government for the purpose of carrying out the provisions of the Convention.

3301. Would not that be so, exactly the same, the Convention being alive and Great Britain standing out. Would not they be equally bound with other nations under the obligations of the Convention to issue intercommunicating licences?—In that case, of course, there would be the influence and the attitude of the shipping companies, which might prefer to use the Marconi system.

3302. But they, I understand, would be met by the clause which was put in very much to meet this point—the Exemption Clause—under which, if it is thought while, after consulting with the Marconi Company, to exempt the Marconi system, they would be exempted from the obligation to intercommunicate—other stations and other systems being open. They would be then surely in the position that you want them to be in; would not they?—In that case they would probably or possibly lose all their foreign ships using the Marconi system.

Mr. Gwynn.

3303. And would not they lose also the great majority of the English ships?—If England ratified the Convention?

3304. Would not England be bound to enforce the terms of the Convention as far as possible to English ships.

Mr. Sydney Buxton.

3304*. No, because she can exempt anything she likes.

Mr. Gwynn.

3305. If England ratified the Convention, would not England be bound by the spirit of the Convention to use all the influence she could to advise shipping companies to produce as much intercommunication as possible?—Yes, that is what I understand and take exception to.

Mr. Sydney Buxton.

3306. On the other hand, was not the position and attitude of the Government this: in order to meet largely the Marconi position they insisted, as a *sine qua non* of signing, that there should be this Article enabling them to exempt—which means, of course, that they would use it with the greatest possible desire to meet any legitimate

Mr. Sydney Buxton—continued.

difficulties which might arise?—Yes; but I still consider that the fact of the Government adhering to the Convention would do irreparable damage to the company's business, which damage would not occur if England did not ratify.

3307. Even if non-ratifying, the same position occurred—that is to say, the Marconi system was exempted from intercommunication, but other licences were issued for intercommunicating stations?—I cannot say that it would be the same position.

Mr. Gwynn.

3308. Assume the generally-admitted fact that at present the great bulk of the commercial stations in the world are Marconi stations, would it be said that England was carrying out the spirit of the Convention if England went into the Convention and exempted all the Marconi stations?—I suppose it would not.

3308*. In the Convention the Powers are to depend, I think, for enforcement of the regulations upon the power to dismiss operators. Have you considered how the Convention would work out in the way of enforcing penalties? Had you and the Marconi Company the power of dismissing operators?—Yes.

3309. Did you find that that power was easily employed?—It has been employed sometimes.

3310. Did you find it adequate to prevent the interference?—Yes, we did. It gave us control over the operators.

3311. Why, if you found that control adequate, did you institute the system of bonuses?—To give them an opportunity of being more diligent in the carrying out of their business. May I, Sir, make a short statement. With regard to the opinions which I have given on matters of interference which are strictly technical opinions, it has occurred to me that some of the witnesses who have already come before you, or who may afterwards come before you, may, for some reason, doubt the accuracy of my remarks. Now I would say, if the Committee have any doubt as to the accuracy of what I have stated as to this question of interferences, etc., I should be very glad if they would give me the opportunity to demonstrate, by a practical demonstration at any of my stations, any technical point which they would like to see demonstrated.

Chairman.

3312 Have you a station within easy reach of London?—Not very close.

Tuesday, 7th May 1907

MEMBERS PRESENT:

Mr. Sydney Buxton.
Sir John Dickson-Poynder.
Mr. Gwynn.
Sir William Holland.

Mr. Lambert.
Mr. Arthur Lee.
Mr. Macpherson.
Sir Gilbert Parker.

Sir JOHN DICKSON-POYNDER, BART., IN THE CHAIR.

Sir WILLIAM HENRY PREECE, K.C.B., F.R.S., called in, and Examined.

Chairman.

3313. Will you be good enough to tell the Committee in what capacity you come before us?—I am a retired Engineer-in-Chief of the Post Office. I was at work on wireless telegraphy for 12 years before Mr. Marconi came to England, and we had had several very successful experiments—more than experiments—real work done. In 1892 we signalled across the Bristol Channel; and it is a very remarkable fact that the first message that was sent to Mr. Gavey (who has appeared before you and who was in charge of those experiments), announced the death of my predecessor; it was the first message really sent. Then in 1895 we maintained communication between the Island of Mull and Argyllshire for three weeks during the time the cable was broken, and messages and Press messages were freely sent. At that time this fact appeared in the papers; it created an immense sensation, and, as a matter of fact, in 1892 the Press made as much fuss over the success of my experiments as they did six years later over the success of Mr. Marconi. Then, later, Rathlin Island was placed in communication with the mainland of Ireland. The apparatus was established in Lloyd's station, and later on it was transferred from Lloyd's station to the Post Office, and there it has been at work ever since, conducting the commercial business of the Post Office between Rathlin Island and the mainland, a distance of about nine miles. After that the success of wireless telephony was so clear that Mr. Gavey established between the Skerries (he mentioned this in his own evidence) and Holyhead, a distance of four miles, communication by wireless telephony.

3314. In what year was that?—That was done in 1901, and it is now in daily use. Being associated so much with the earliest history of wireless telegraphy, I thought it was quite right that the history of the subject should come before you. The main point of my coming here is that wireless telegraphy is a free system open to the whole world. It was not patented

Chairman—continued.

by the Post Office; it was developed by the Post Office, and when Mr. Marconi came he only came with a new way of doing an old thing.

3315. So that you claim that the system was in active operation before Mr. Marconi's first advent?—Certainly, Sir—developed by the Post Office under my department.

3316. Can you give the Committee your views with regard to the position that Mr. Marconi holds, whose system is characterised as a monopoly?—He has given it very fairly himself.

3317. What are your views as to the position held by the Marconi Company?—I want to draw a very great distinction between Mr. Marconi himself and the Marconi Company.

3318. You are dealing exclusively now with Mr. Marconi as an inventor?—I am, Sir—certainly.

3319. As distinct from the Marconi Company?—Yes. I want first to refer to Mr. Marconi personally. He came to me with a letter of introduction from Mr. Campbell-Swinton, and he came to me at a very fortunate time for himself, for I was just then smarting under the disappointment of having made a failure in communicating with the East Goodwin Lightship; in fact, the system that we had developed was not able to communicate with moving ships, and Mr. Marconi came to me with a plan by which he used Hertzian waves applied to a coherer—a very delicate instrument indeed—and I saw at once that this was something that would enable us to communicate with moving ships, and at my recommendation every possible facility was given to Mr. Marconi. We tried his experiments, as he himself has stated, extremely fairly, and I have not one word to say against (or for) Mr. Marconi; his credit is very well deserved; but what I want to press on the Committee is that he could not, and did not, patent wireless telegraphy, for wireless telegraphy existed then; and it was by the aid of our system between Lavernock and Flat Holm that we were

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Sir W. H. PREECE, K.C.B., F.R.S.

[Continued.]

Chairman—continued.

were able to carry out his own experiments across the British Channel, which were the first experiments that he had ever made across the sea; and it was from those experiments (in May, 1897) that the Marconi Company started; and then Mr. Marconi and the Post Office broke off all connection and we lost all interest for the time in the Marconi system. But what I want to impress is that the Post Office left wireless telegraphy free to the whole world.

3320. In view of what you say can you tell the Committee your views as regards the exceptional advantages that Mr. Marconi's Company has enjoyed in recent years?—The exceptional advantage is this, that it is able to maintain communication with moving ships, and moving ships with each other. He used Hertzian waves, which had not from my own personal experience been used before. We have been able to extend the range (the distance) to which we can communicate very much by adopting the Hertzian waves as Mr. Marconi did.

3321. When does the first patent of Mr. Marconi expire—how many more years of life has it to run?—It is either three or four, 14 years after 1897—that is four years.

3322. Then will you tell us what your views are as regards other wireless systems, and to what extent they are capable of doing commercial business?—As regards other systems, of course, being so naturally connected with wireless telegraphy, I have taken the deepest interest in every step that has been taken in advance, and every one of the different inventors who have come to this country and others in the country, have made me fully cognisant of the details of their apparatus and the principles involved; so that I have made myself thoroughly well acquainted with the Lodge-Muirhead, the De Forest, the Poulsen, the Telefunken, the Rochefort (the French system), and the Fessenden (American).

3323. Provided intercommunication was allowed between these several systems do you consider that wireless telegraphy would proceed with success?—I have not the smallest doubt about it, Sir, for the whole effect of the operations of the Marconi Company has been to check and really stop the growth of wireless telegraphy as a convenience to navigators as well as a commercial undertaking.

3324. From your long experience, therefore, you do not recognise any of the objections that have been raised by previous witnesses?—Quite the reverse; I take quite the reverse view. The only reason that has been given in favour of enforcing of the monopoly by the Marconi Company is that, admitting intercommunication, they admit the infringement of their patent. On the other hand I should say that if there is any value whatever in the patent the infringement is proved by the fact of other stations being able to communicate with the Marconi system because it is based upon the same idea.

3325. Can you tell us shortly the improvements that have taken place in wireless telegraphy during the last 10 years?—There have been three or four very great steps taken in advance. The first one was the art of tuning, and that originated and was patented by Sir

0.6.

Chairman—continued.

Oliver Lodge in 1897, and I have a very strong belief in the strength of his position in that patent. The other advances made have been in the delicacy of the receivers used; the most practical, not perhaps the most delicate, but one of the best coherers or best receivers, is called by Sir Oliver Lodge his coherer, and he described it in his evidence—it is an extremely practical thing. Then there was a very great step in advance taken in Germany by Professor Schloemilch, who introduced the electro-chemical receiver that has been the basis of the De Forest and of the Fessenden receivers, and lastly there have been great advances made in the "receiver" direction by the Telefunken system. Then the last and the greatest step, in my opinion, is one taken first by Mr. Duddell and followed by Mr. Poulsen—Mr. Duddell being a Britisher and Mr. Poulsen a Dane—in the use of persistent waves, and the use of persistent waves is going to be a great step in advance; it leads to the economy of power and also to ease in tuning.

3326. Will you give us a definition shortly of "persistent waves"?—"Persistent waves." I should say that you could draw a distinction between a blow on a big drum and a rattle on a lot of drums. Now the blow on the big drum means one loud boom and that is followed by descending ones which rapidly disappear. The rattle of a row of drums may be as continuous and as long as you like. That I will take as one illustration. Another would be a flash of lightning, which is a sudden blow. An electric light like the light you have here is a "persistent" light, and this is worked, I believe, by continuous currents, but if it were worked by alternating currents it would be persistent, continuous waves of electricity passing through producing the electric light.

3327. Will you explain how the "persistent waves" are produced?—They were produced by Mr. Duddell by means of an electric arc—what they call a singing arc. That was the first one. That is the system adopted by Mr. Poulsen also; but since then there have been several systems proposed. They have what they call electric valves which are able to maintain these persistent alternating currents; there is no difficulty in doing so.

3328. Now, as representing a firm of consulting engineers, you have had occasion to examine minutely into many of these systems, have you not?—I have. I have given you the result practically of the different systems. I have been compelled to make myself acquainted with their different merits.

3329. And you are prepared to confirm what has been said by previous witnesses who have come before us speaking in regard to these systems?—I do confirm them. I have read carefully the evidence and I do not disagree with any part of the evidence given by the witnesses for the other systems.

Mr. Arthur Lee.

3330. When you mentioned the various systems did you mention the Marconi?—Yes; there are seven. I mentioned six; the Marconi, of course, makes the seventh.

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3331. Now

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Chairman.

3331. Now as regards the ratification of the Convention, can you see, looking at it from the point of view of the Marconi Company, any serious objection to that Convention being ratified?—I think it would be a very serious evil to this country if that Convention were not ratified, not alone in the interest of the Post Office or of the business itself, but in the interest of the public and in the interest of those who travel by sea; for there is nothing that adds so much to the comfort and safety of the voyager as the fact of being in communication with ships not far off, who tell you of danger, who tell you of safety, and who tell you of direction, so that a captain on board ship feels much more secure and far more in command of his ship with the knowledge he gains from neighbouring ships than he did before. For instance, take icebergs, derelicts, fogs. I have only just arrived across the Atlantic (last week). I left America on the 26th April and arrived last Thursday in Liverpool, and we used the apparatus frequently to find the state of the weather ahead and behind us. We found, for instance, from a German ship (the "Emperor Frederick the Great," I think it was) that she had got through the fog, and we stuck on. On the other hand, when coming away out of New York, we were kept there for 17 hours by a fog that was as thick as it could be between Sandy Hook and Nantucket, so we had to remain anchored for 17 hours until the fog cleared up; but we were perfectly happy, because we had information of the clearance of the fog long before the fog cleared. Again, we had information that the water was very cold, and that there might be ice about, so that a careful watch was kept of the condition of the water and the probability of ice; so that I look upon it as absolutely essential now that we should take any step that would make wireless telegraphy a free trade, and we want as much as we possibly can to encourage small ships to use this thing, not for the amusement of passengers (passengers do not seem to care much about it—they use it as a kind of amusement), but for the captain of every ship to know the conditions around him; it makes his life much more secure on the sea. That is why I am so anxious about it.

Sir Gilbert Parker.

3332. Is it not the case that the happy state of things which you describe exists without the Convention being ratified? You have been describing the happy state of things that exists concerning radio-telegraphy at this moment?—Yes.

3333. But that exists without the ratification of the Convention, does it not?—Certainly. All these points could exist just as well without the Convention as with the Convention, but what the Convention will do will be to a certain extent to break down the monopoly that the Marconi Company are endeavouring to secure, and it would lead to the organisation and the regulation of all the telegraph business of the world. We have a Convention now controlling internationally all the telegraph business of the world; it has produced between the different

Sir Gilbert Parker—continued.

countries a great alliance. I can speak from great experience over this, because I was for 30 years with the Post Office under the work of that Convention, and its result is that the whole of the international system of the world is conducted on well-regulated methods, rules of precedence, rules of signals—the signals of the alphabets—and everything arranged, and unless it is done over the sea—over wireless telegraphy—you have a great break between your ships at sea and the telegraphic systems of the Continent, or the Colonies, or wherever it may be. You want to have the control of the business on every ship conducted on a recognised uniform system so that there shall be absolute uniformity throughout the world. That you will get with the Convention—not without.

Mr. Arthur Lee.

3334. I am afraid I do not quite understand your point. First of all I understood you to say that you were advocating the Convention because it would give these facilities to ships at sea; then I understood you to say—when it was pointed out that that was already in existence—that it was in order to break down the monopoly of the Marconi Company. Might I ask which is the point that you take your stand upon?—I made as my first point, Sir, the great value of wireless telegraphy to seamen as a reason in favour of supporting in every shape and form free trade in wireless telegraphy; and I used my second argument as a direct reply to the other point—the second point—that all this could be done without the Convention, and then to support my first point—and that is my strong opinion of the intense popular value of wireless telegraphy to every nation, to every people—I adduced the safety of the mariner.

3335. I understood you also to say that this was the principle of international regulation universally. Does it apply to the cables?—Yes, every cable throughout the whole world.

3336. All cable companies?—All cable companies and all Governments of every nation are associated with this Telegraphic Convention as they are with the Postal Convention; and what this Convention does is simply to extend to wireless telegraphy what already exists with regard to postal matters and ordinary telegraphic communications.

3337. But the cable companies are mostly private companies, I understand?—Yes, Sir, they are nearly all private companies laid down by private enterprise and parties to this Convention, and they attend the Congresses that take place every five years.

Chairman.

3338. In the same way as these companies would be brought in?—Exactly. This proposed Convention is a mere extension of the Convention that already exists, applicable to wireless telegraphy so as to bring it into a similar form.

Sir Gilbert Parker.

3339. Do you think that wireless telegraphy has advanced to that position where you can have

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Sir Gilbert Parker—continued.

have, as it were, combination and organisation and not at the same time prevent what might be called the individual development through separate companies like that of the Marconi Company?—I am quite sure of that, Sir. There is no difficulty whatever in intercommunication; in fact, you have had before you in evidence that between Scheveningen and the ships fitted with Marconi apparatus there is already intercommunication, and I see no reason whatever why there should not be intercommunication between all the systems that I have mentioned.

Chairman.

3340. You see no physical obstacle in the way?—I see none at all, Sir.

Mr. Arthur Lee.

3341. How can the Poulsen system, for example, communicate with the Marconi system?—It could not in its ordinary form, but it can be made to do so.

Sir Gilbert Parker.

3342. May I just repeat the question further to make it quite clear. Do you think that radiotelegraphy has advanced to the position where this general organisation can be established?—Distinctly, Sir, yes.

3343. Without any resistance as it were being given to scientific development?—I am quite satisfied that it has so advanced. It is now in the practical stage. The system itself is 12 years old, and there is no difficulty whatever in working intercommunication. You have had splendid evidence of how easily it is done given to you by one of the naval witnesses; he is able to read at Dover (I forget how many) 20 or 30 other different signal stations.

Mr. Gwynn.

3344. May I just ask a question to make clear to myself what you have been saying. You have been illustrating from the analogy of the cable companies. Did I understand you to say that that was an agreement that the international cable service operated through an agreement between rival companies?—Distinctly—absolutely.

3345. And may I ask, when that international agreement was made international, were there several companies in the field?—Several, as there are still.

3346. With established businesses?—With established businesses.

3347. And do you assert that in the field of wireless telegraphy there are several companies conducting the business of public telegraphy on a commercial scale?—Not yet.

3348. So that the analogy breaks down to that extent?—To that extent it does.

3349. That is to say, the position is that there is one company conducting commercial business on a considerable scale?—That is only confined to England; I am only speaking, I mean, of Great Britain.

3350. My question was in reference to the world, if I may go back—if I did not make myself

Mr. Gwynn—continued.

clear: are there, in your opinion, several companies at present doing a considerable volume of public commercial business?—Yes, in America, for instance, there are two or three; they are not restricted in any way there. We practically, in England, have only one—that is the Marconi Company.

3351. Can you name any of the companies in America that are doing a public commercial business?—Yes, the De Forest and the Fessenden; there are two. The Fessenden is endeavouring at the present moment to communicate across the Atlantic, from a place near Boston, to Scotland.

3352. Can you give us any notion of the amount of business that those companies are doing in the way of public wireless telegraphy?—No, Sir, I cannot.

3353. Can you mention any company that is doing public commercial business?—The Telefunken, in Germany.

3354. Can you give us any idea of the volume of business they are doing?—No. I think it would be a very good thing if you had evidence from the Telefunken Company.

3355. We have endeavoured to get evidence to show the existence of any other company than the Marconi Company doing commercial business on a large scale. We have failed to get it from the representative of the De Forest Company?—Well, I can only say this (I have got it here), that I was disappointed at not being seen off at New York by a friend, and when we were a day out I received this message from Mr. Lieb in New York, "Sir William Preece, 'Carmania,' pleasant voyage and kindest regards from many friends you leave.—Lieb." That was received *via* Nantucket Island when we were about a hundred miles out at sea.

3356. Was it received on Marconi apparatus?—Surely, on the Marconi apparatus on board the ship. I do not know how it was sent.

Chairman.

3357. You do not know what system it was sent by?—No, I do not.

Mr. Gwynn.

3358. That, of course, is a little different evidence to what we have had before, because if it was an ordinary piece of commercial business it is evident the Marconi Company would not have transmitted it?—It might be so; I apologise; but I thought the message was rather interesting.

Sir Gilbert Parker.

3359. I suppose it is the case that wireless telegraphy like cable telegraphy has reached what may be called a state of perfection?—It has reached a practical stage; I will not say that it is quite perfection, but it has reached the practical stage.

3360. A stage where at any rate it is not dependent upon what you may call scientific discovery from day to day?—No; scientific discovery will only improve existing matters.

3361. The

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3361. The point I wanted to make was this: do you think that radiotelegraphy has reached such a point?—I do. When I speak of wireless telegraphy, I mean radiotelegraphy.

3362. Quite so, but I meant *wire* telegraphy naturally, as compared with cables and so on; has it reached a similar state of perfection. I do not know whether I said wireless telegraphy, but do you think radiotelegraphy or wireless telegraphy has reached the same position as *wire* telegraphy?—I think it is quite in the same position as submarine telegraphy for instance, so that within moderate distances—within 300 or 400 hundred miles—it is quite practicable; there is no difficulty about it at all; it is practical and certain.

Chairman.

3363-4. You think that wireless telegraphy to-day has reached the same stage of development that cable telegraphy had reached when that International Convention was arranged?—Exactly.

3365. To regulate the form of the message?—I should say wireless telegraphy to-day is in quite the same state as submarine cables business was when the Convention was formed about 30 years ago.

Mr. Arthur Lee.

3366. You mean scientifically—not commercially?—Scientifically.

Sir Gilbert Parker.

3367. Is that exactly the case, and if it is, is it due to the fact that wireless experts believe that we will presently have perfect communication, we will say, from shore to shore at distances as great as that between England and the United States which we have not got now?—No.

3368. But we have got that in cable telegraphy?—We have got that in cable telegraphy; I will not say that we will not get it, but we have not reached that stage yet.

3369. Therefore it is not quite on the same basis that the experts expect that wireless telegraphy will reach that position where a system of wireless telegraphy will be established between England and the United States, we will say?—I am speaking of a period when the Atlantic cable was not laid. The Atlantic cable was only laid in 1866. The Convention was established in 1865.

Chairman.

3370. The year that the cable was laid?—The first cable was laid in 1858, and that carried 732 messages; it gave the announcement of a movement of some troops and then it became dead. Then they tried to lay a cable again in 1864, but the first real successful cable was laid in 1866—the same year as the Convention; and certainly wireless telegraphy now is in a state somewhat similar to that which the submarine cable telegraphy was in in 1866.

Sir Gilbert Parker.

3371. Can messages then be sent by wireless telegraphy systematically from England to the United States now?—Not now.

3372. But when the cable was opened messages could be sent systematically over the cable?—Not with the first cable—not with the 1858 cable.

3373. And not with the second one when the Convention was signed?—Yes.

3374. Then wireless telegraphy, I take it, is not in quite the same position?—It may, perhaps, be a little behind.

3375. You are confident, then, in putting it that in a year from now wireless telegraphy will be established systematically between England and the United States?—If it is to be done at all it is to be done with our present knowledge. Nobody has attempted that point except the Marconi Company and Fessenden. The Fessenden experiments have broken down through the high mast at Machrihanish having been blown down in a gale; but he did get signals across, and there is hope that there will be communication between England and the States, whether commercially is quite another question; I do not believe in the commercial aspect of the case, but I do believe in the possibility of sending signals across the Atlantic.

3376. Then you think the position is exactly the same?—I believe so.

Chairman.

3377. You do not mean that the commercial messages will be transmitted by wireless telegraphy as against the cables?—Exactly. I do not see any money in it—that is what I mean.

3378. Wireless will be used for shorter distances—ships coming within reasonable distance of the shore?—Yes. There are ten cables now between Europe and the States, and each of those cables can work at the rate of about a hundred words a minute—duplex.

3379. So that really Sir Gilbert Parker's analogy of distance as regards the cable laid from England to the United States is hardly one which you can bear out in wireless telegraphy?—Scarcely.

3380. In your judgment it is more difficult as regards distance in the case of wireless telegraphy?—Yes. I take the point to be really this: Is wireless telegraphy now advanced sufficiently to say that it is in the same condition as submarine telegraphy was when that Convention was entered into? And I say distinctly: I think it is.

3381. For the purposes to which it is to be put?—Yes.

Sir Gilbert Parker.

3382. That is for these purposes. I think that is a very important point which the Chairman has raised. Do not the purposes of wireless telegraphy include long distance messages as well as short distance messages?—I do not think so. I do not think there is any commercial necessity for these long distances. The practical necessity and public necessity is, rather, for the short distances all within a radius of, say, 300 or 400

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400 miles. I look upon it as an absolute sheer waste of money in endeavouring to send signals across the Atlantic. It is meaningless and useless, in my opinion.

3383. Would that be the case, for instance, in a time of trouble in the south seas, if New Zealand wanted to send a message to Australia or Australia to New Guinea, or New Guinea to Singapore? Do not you look forward to the time when these long distance messages will not only be useful but, if they can be sent, absolutely necessary?—That would be so in times of trouble accident, or war, it would be so; but my opinion was expressed almost entirely on the commercial aspect of the case and the possibility of sending, commercially, messages from the public.

3384. There is just one more question I would like to ask on that point. The laying of cables would be more expensive, would it not, than having the apparatus for wireless telegraphy between two points?—Undoubtedly.

3385. Then there are a good many cases—in the South Sea, for instance—important points in our geographical empire, where they have not cables?—Yes.

3386. Would it not be a complete advantage there?—Distinctly.

3387. And would it not be a commercial advantage?—Distinctly, Sir. I have put down in my *précis* a note to that effect—that I regard wireless telegraphy as supplemental to the submarine cable and not as supplanting submarine cables.

3388. Then you would rather revise your statement made a few moments ago of the unimportance of long distance messages by wireless telegraphy—the commercial unimportance?—No.

3389. You conveyed that impression, I think?—I want to draw a great distinction between supplanting and supplementing cables.

Chairman.

3390. The expense would rather interfere would it not?—Yes.

3391. It would be more expensive?—It would be more expensive; it is a question of expenditure entirely.

Sir Gilbert Parker.

3392. I am afraid I do not quite understand. You just now said it would cost less, for instance, to lay a cable, we will say, between the New Hebrides and Australia than it would to establish wireless telegraphy?—I had in my mind the question of replacing a cable from England to America as compared with wireless telegraphy.

3393. You are confining yourself to one portion of the hemisphere?—Exactly. Now you are asking me about very distant signals being connected with each other.

3394. Yes?—There I say of course it would be of value in times of difficulty and of danger, but there is no commercial value in it.

3395. Do you think, for instance, there would be no commercial value if a large trade was developed, say, between the New Hebrides and Australia?—If their trade was large there, it would be conducted by cable.

Sir Gilbert Parker—continued.

3396. You think that would be the case even when wireless telegraphy had developed to a position where it could send messages without difficulty—that it would be cheaper than the cable messages?—My “cheapness” applies only to capital expenditure. It costs more to work with wireless telegraphy than with a cable. There are several cases where I have had to report on the feasibility of connecting outlying islands with the mainland, and I have been asked over and over again: Can this be done with wireless telegraphy? I have had no difficulty at all in showing that for short distances it is cheaper to lay down the cable and work between the two places by telephone, for with wireless telegraphy, although your capital expenditure is not serious, you must have an expert at each end; and you cannot retain an expert without paying him fairly well, and the engine or the battery or whatever it may be requires attention also, so that the working expense of wireless telegraphy is much greater for short distances than that of submarine telegraphy.

3397. There is just one point in connection with the previous evidence which has been given: I believe it was stated by one of the witnesses of the Post Office that an operator could be trained who was already a telegraphic operator in a fortnight to take that what you now term a highly expert position?—Yes.

3398. And you think that difficulty of a fortnight would necessarily increase the salary of the operator?—He would be already a highly-paid operator.

3399. But would he be higher paid than if he was a cable operator?—I think so.

3400. On account of the fortnight's extra training?—He would be an expert, who would easily acquire the knowledge of wireless telegraphy, but he must already be a skilled expert.

3401. Would he be more skilled than the cable operator?—Yes.

3402. After a fortnight's training?—Yes; of course, that assumes that he was competent to absorb the training in a fortnight. He must have been good before he would have been selected; he would have been a very good, expert man.

3403. He would probably be not more expert than any ordinary cable telegraphist?—Oh, yes, an ordinary cable telegraphist is not necessarily an expert; he is more of a manipulator.

3404. I think it was said that any good telegraph operator in the Post Office could be taken and trained in a fortnight to become a wireless telegraphist?—Who was it said that, do you remember?

3405. I cannot remember. I think it was either Lieutenant Loring or Captain Payne?—I should not go so far as that.

Chairman.

3406. Have you read the evidence Mr. Marconi gave before the Committee?—Yes.

3407. You will have noted that he laid great stress on successful intercommunication being governed by several other factors besides wave lengths?—Yes.

3408. He laid stress on the point that wave lengths

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Chairman—continued.

lengths had been dealt with in the Convention, whilst other effects, such as amplitude, had been ignored?—Yes.

3409. And that this would militate very much in the future against wireless telegraphy?—Yes.

3410. And especially against intercommunication between different systems?—Yes; I read that.

3411. Can you tell the Committee your views on that?—I noted that with a little bit of surprise, because I could not quite follow Mr. Marconi. The fact is that there are several factors to be brought to bear on this question. He referred only to the length of wave and to amplitude. Well, the amplitude of a wave is simply the strength of a wave. Its analogy in light is the intensity of light; its analogy in sound is the loudness of the notes. There is no ignorance about amplitude. The whole question of the physics of waves of electricity has been splendidly examined by the Post Office officials with the aid of Mr. Duddell. There were some experiments carried out some two or three years ago between Holyhead and Howth, where currents and waves of all sorts and kinds were measured. I concluded that the whole question of the factors involved in waves are thoroughly known. I was surprised to read what Mr. Marconi said on the subject, because I can only account for it by assuming that his magnetic detector has not got such a range as some of the other detectors—that is, a range of delicacy in receiving the different currents. Now with such a coherer as Sir Oliver Lodge's there is no difficulty at all in picking up waves whatever their amplitude above a certain point, and I take it that the Convention, by specifying the wave length and the power, has specified all that is necessary. Where it is described that a ship shall have the wave length of either 300 metres length or 600 metres length, and limits its powers to a kilowatt, you have there all we want to know. The kilowatt regulates the amplitude of the current of the wave that leaves the sending station, but the wave that comes to the receiving station may have passed over obstacles. For instance, supposing it passed an island, all the trees on the island deplete a little of the energy, and the current (the wave) arrives at the ship with a smaller amplitude; but assuming the delicacy of the receiver to have a wide range there is no difficulty in intercommunication at all.

3412. So that you consider that leaving amplitude out of the question has in no way a restrictive power in wireless telegraphy?—On the contrary—quite the contrary—I should judge that the introduction of an amplitude would be most confusing and of no use whatever. To do as you have done—to define the power and to define the wave length—is all we want, and there is no practical wireless telegraphist that I know who is not quite ready to accept those two factors, for the energy conveys all the other factors.

3413. Then another point we should like to know your opinion on is: Mr. Marconi was apprehensive that the Convention would stifle progress and suppress new and struggling experimental stations?—Yes; he used some analogy about "swaddling clothes."

Chairman—continued.

3414. I do not think it matters much about the terms he used; we have given you the sense of it?—I think he referred to the fact that the Convention might act as a check to progress—he meant that—as a check to progress. He used the analogy of swaddling clothes, but I do not at all agree with it. I think, as I have said from the very first, what we want is free trade, so that everybody may have a fair chance to test his views, and to test new apparatus, and not to try to bolster up what after all is a weak monopoly.

Sir Gilbert Parker.

3415. In what way do you consider the monopoly "weak"?—The monopoly weak?

3416. What do you mean by that?—I mean this, that it is a monopoly based on the assumption that the Marconi patent covers wireless telegraphy; and I say it does not. No patent could cover wireless telegraphy, because wireless telegraphy existed before Mr. Marconi came to England, so I say his patent is a weak one; it covers, and, I believe, it covers well, his own apparatus and his own mode of working, but no more than that; it does not cover wireless telegraphy.

3417. Has Mr. Marconi made that plain upon his instruments?—No, Sir, I do not say that he does do that. What I do say is that they assume the monopoly, they want to get a monopoly, but that is based on the assumption that their patent is strong, and I say it is weak.

Mr. Arthur Lee.

3418. Do you apply the term "weak" also to their organisation?—I have not been asked the question and do not know about it; but I have formed the opinion that the Marconi Company is the worst managed company I have ever had anything to do with.

3419. I was not referring to the management of the internal affairs of the company, but to the organisation as a public telegraph service?—Its organisation is chiefly indicated by the fact that they quarrel with everybody

Chairman.

3420. Your evidence has gone to show that you are strongly in favour of the Convention being ratified, I take it?—Certainly; I cannot be too strong on that subject.

3421. What are your views about it if Great Britain refuses to ratify?—I think in the first place we should be the laughing stock of the world, and in the second place we should throw into the hands of those who are now striving to get the business practically all the wireless telegraph business in the world. England occupies geographically a very magnificent position, and its ships are to be found everywhere, but its coast area is very small compared with that of France and Spain, the United States, and other countries.

Sir Gilbert Parker.

3422. Why would she be open to the derision of the world?—Because Great Britain has developed

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developed wireless telegraphy; through her aid and through her assistance it has become a great aid to navigation, and here we are doing all we can to improve it, and we want to improve as much as we possibly can its commercial aspect. To do that we want to enter into partnership with all other administrations in the world and form a well-designed, well-regulated, and well-controlled system. If we do not ratify the Convention, we become one of 26 or 27 others who will go on in spite of us and be glad to get rid of our opposition.

Mr. Arthur Lee.

3423. We do not sacrifice our peculiar geographical advantages by not ratifying?—We do not.

Sir Gilbert Parker.

3424. You say they would be "glad to get rid of our opposition"?—I ought to say, perhaps, "our present position."

3425. You think, then, that holding the commanding position she does with wireless telegraphy now, she would lose that commanding position if several other nations who have developed a wireless telegraphy, but indifferently as yet, entered into opposition with her in spite of the wide range which her different companies cover?—That is precisely my view. You see, the exclusive policy of the Marconi Company is an invitation to all foreign nations to adopt a similar policy without fear of inconvenience so soon as foreign shores near the British shores are fitted with stations.

3426. If we did not enter the Convention the development of wireless telegraphy in England would not be confined to the Marconi Company, would it?—Practically.

3427. Then the other companies, in your mind, are not of very much moment?—Not at the present moment; of course, they have no licences.

3428. Would they develop better if we were in the Convention?—Certainly; there is no doubt about it.

Chairman.

3429. You consider that the other companies would develop better, but you do not consider that the Marconi Company need necessarily suffer any injurious effects?—I think they would be very much improved, because the first effect would be to increase the great number of ships that would be fitted up. Ships now are hesitating to fit up, they will not fit up as a matter of fact; if it were made free they would fit up, and if there were intercommunication the business of the Marconi Company must certainly increase.

Sir Gilbert Parker.

3430. You think they are blind to their own interests?—Entirely.

Mr. Gwynn.

3431. When you say "we" have developed wireless telegraphy, whom do you mean by 0.6.

Mr. Gwynn—continued.

"we"?—Well, we speak of ourselves as a body—the country, and our Post Office department, and other electricians in England.

3432. But is it not the case, as a matter of fact, that the practical development of wireless telegraphy has been due to the Marconi Company?—Not so very much, Sir. I think myself if the Marconi Company, or Mr. Marconi himself, had never appeared upon the scene we should have had wireless telegraphy now.

3433. But in practice is it not the case, as you have just said, that there is no other system doing any considerable business in Great Britain?—Because it is the only licensed company. It is in the hands of the Post Office.

3434. Before 1904, when the licences were for the first time issued, it was still the case, was it not, that the majority of the business was in the hands of the Marconi Company?—It was.

3435. That is to say, in effect I think you would admit that practically wireless telegraphy was made a working institution, and was extended, as far as it has been extended, by the Marconi Company?—I quite agree to that.

3436. You mentioned, I think, that the main object of the Convention was to break down the working monopoly of the Marconi Company?—I did not say that, Sir; I said that was the reason why they objected to it, that they wanted to make their business monopoly.

3437. I understood you to say that the chief advantage to be gained by ratifying the Convention in your opinion was that the present monopoly, or exclusive system, would be broken down?—I do not think I said that; I did not mean to imply that.

3438. What do you think was the main object of the Convention?—What I mean to imply is really this: that the Convention will lead to a uniform system of working all over the world, which will lead also to the development of other systems. If I did say anything that could convey that sense it would mean that the Marconi Company were desirous of maintaining their monopoly so that they might develop all the rest of the business, but I did not propose that any arrangement made between the Post Office and the Marconi Company should in any way be altered; they have got their licence—they have established the business—let them go on; then let there be free trade in wireless telegraphy, and their business would double at once.

3439. I must cross-examine you in a minute or two as to what you mean by "free trade." Perhaps you would not mind saying at once what you mean by "free trade"?—I mean by free trade that under the regulation of the Post Office, those who apply for licences should have licences.

3440. You have seen, I think, in Mr. Marconi's evidence that he expressed his view that his company had no objection to granting a licence to other companies?—Yes, Sir; he agreed to free competition.

3441. Free competition?—Yes; Mr. Hall did not.

3442. I cannot agree with you about that, Sir William Preece; I do not think the question was put to Mr. Hall. It was put to Mr. Marconi 2 G —and

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Mr. Gwynn—continued.

—and that was the first time it was put. So far as Mr. Marconi was speaking for the Marconi Company he definitely said that he would be content to see licences granted to other companies on the English coast provided England did not ratify the Convention, which practically imposed the necessity of intercommunication?—Yes.

3443. Again, what do you mean by the term "monopoly"?—It is just suggested to me, Sir, that my view of "free trade" would be better expressed if I called it "equality of opportunity."

3444. "Equality of opportunity?"—That is really what I meant.

3445. You admit that Mr. Marconi at all events has expressed his willingness to accept equality of opportunity?—I do.

3446. Then may we now come back to the question of "monopoly." In what sense do you mean that the Marconi Company desires to have a monopoly?—I mean this, that all their action, their refusal to agreeing to intercommunication, their objection to Lloyd's retaining another system on Rathlin Island, meant this, that they want to secure the monopoly that their patent gives them. That is the sense in which I use "monopoly."

3447. You mean that their monopoly is based entirely upon patent?—It is based entirely upon the value of their patent in Great Britain. Their monopoly does not extend to anywhere else excepting Great Britain.

3448. I think I should object to that construction being put upon the evidence that has been given. I do not think you can say that the company claims a monopoly when it is willing to accept the erection of stations on another system alongside?—If they are willing to do that, why do not they agree to the Convention.

3449. That is another question. I will put this question to you: Would you say that Lloyd's, which you have just mentioned, has a monopoly?—They have a monopoly of one branch of business—that is, signal stations all around the coasts; and on that point I think it is most remarkable that here we have under one organisation the whole of our coasts round the world practically in the hands of Lloyd's, and yet up to the present moment they have only got five of their stations fitted with Marconi apparatus.

3450. You admit that Lloyd's have got the monopoly, not merely in England, but in the world, of the business of maritime intelligence?—They have, practically.

3451. Does that monopoly rest upon concessions made by Governments, or upon superior commercial efficiency?—It is superior commercial efficiency entirely.

3452. Then I would put it to you that the only monopoly which the Marconi Company can be accused of aiming to establish is a monopoly resting on superior commercial efficiency?—In the case of Lloyd's?

3453. No. Would you admit that the object of the Marconi Company is a monopoly based upon superior commercial efficiency?—No, certainly not. I should be inclined to say that it was based on commercial inefficiency.

Mr. Gwynn—continued.

3454. That, I think, is hardly an answer to the question. This term "monopoly" has been used so much that I think it ought either to be defined or ruled out. In what sense can you say the Marconi Company claim a monopoly when they express themselves willing to admit the establishment of other systems alongside their own?—Well, I used the term "monopoly" as applied to their patent—a desire to make their patent a monopoly. If they wished to prevent licences being given to other people it means that they want those other people to come to them for their apparatus and therefore to work under their patent. In that sense I take it to be a monopoly.

3455. I do not think it has been suggested by the Marconi Company. Mr. Marconi, for instance, admitted that because the Poulsen system is a different system from his own?—It is—yes.

3456. And if he is willing to see the Poulsen system—which admittedly does not conflict with his patent—licensed on British territory, can it be said that he is claiming a monopoly of wireless telegraphy?—I do not know. I have not heard any expression of opinion about the Poulsen system from Mr. Marconi. I do not think he agrees to its being outside his patent. However, I cannot say.

Sir Gilbert Parker.

3457. Just on this point might I ask if it is the Marconi Company which prevents, either by its influence or by agreement, the Post Office from granting licences to other companies?—I cannot answer that from my own knowledge, Sir.

3458. Then there is no such monopoly on the part of the Marconi Company as would prevent the Post Office from granting licences to other companies?—I think not.

Mr. Gwynn.

3459. Then if I may go back to the question of the cable companies, you stated, I think, that in your opinion wireless systems had reached the point of scientific efficiency which *wire* telegraphy had reached at the time of signing the International Convention. Do you maintain that rival systems have reached the same point of commercial development which the rival cable companies had reached at the time of the signing of that Convention?—I do not quite follow your point.

3460. When the Convention making cable communication international was signed, several companies doing commercial business were consenting to that agreement—they were in existence, at all events?—Yes.

3461. Do you assert that the commercial situation is now analogous in regard to wireless telegraphy; that is to say, that there are several commercial companies transacting public business?—Well, no. Mark you! I spoke almost entirely from the scientific point of view, and I say on the scientific point of view that wireless telegraphy now is quite as advanced as submarine telegraphy was in 1864.

3462. But

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[Continued.]

Mr. Gwynn—continued.

3462. But in the commercial point of view, would you agree that any agreement made at present must be made between one organised company doing a good deal of business and other companies which do not as yet do any considerable commercial business?—That is the case as far as Great Britain alone is concerned.

3463. I mean taking the case internationally?—I could not agree to that from the international point of view, because I think not sufficient credit has been given to the enormous extension of wireless telegraphy in Germany and abroad generally.

3464. Has your attention been called to the fact that most of the German liners carry the Marconi apparatus?—Oh, yes. That is simply because they communicate so much with England; they come through the Channel and their business is with England. I mentioned the fact that crossing the Atlantic we communicated with one of the German liners.

3465. Would it be impossible for the Telefunken Company, assuming them to exist as an organisation, to establish stations in France?—None whatever.

3466. Would you say that they exist as an organisation for the purpose of carrying on this business; have they ever failed to do so?—They do now.

3467. They do establish stations?—They are an organised company with extensive management and arrangements.

3468. But they have not tried to secure the traffic in the British Channel, have they?—That I cannot tell you; I have had no communication at all with them about it.

3469. You admit that the main German shipping lines are carrying the Marconi apparatus by preference?—Certainly; because it is their only means at present of communicating with England and the English Channel.

3470. To go back to the cable companies, do the rival cable companies grant each other the use of their apparatus on communication?—When broken down you mean?

3471. That is to say, is cable company A entitled to touch the apparatus and send a message through the wires of cable company B?—No; that is not done within my knowledge.

3472. Would it not be the case that under the Convention any ship of the Telefunken Company, say, would be able to send its message through the apparatus of and through the organisation which was being controlled by the Marconi Company?—It could do so.

3473. It would be entitled to do so?—Ah! I do not know about that, Sir.

3474. Does not the principle of intercommunication mean this—that any user of a wireless telegraph apparatus has a right to communicate with any wireless station?—It does mean that.

3475. Does not that carry what my previous question implied?—Yes, but I do not quite follow. What it does carry is this (and what is the main object of the Convention), that the work of every ship shall be conducted in exactly the same way, with the same signals, and on the same methods. That is the object of the Convention.

Mr. Gwynn—continued.

3476. An operator operating the Telefunken apparatus would be entitled to come into touch with the Marconi Company's lines of communication?—With his apparatus at the nearest shore or ship.

3477. You stated that the Marconi Company's only objection to the Convention was that it would infringe their patent rights?—It was my idea of their reason for taking the position they do.

3478. Your attention has not been called to the fact that they object on the ground that it would render organisation very difficult?—I have not noticed that objection.

3479. As a matter of fact, I think that was the principal objection urged by Mr. Cuthbert Hall, that the advantage of the centralised control of working was great. Was your attention drawn to the point made by Mr. Marconi that according as systems developed they became less capable of intercommunication?—I did not notice that.

3480. That was, I think, Mr. Marconi's main objection to the Convention?—I should not agree to that.

3481. You would not agree to that?—No.

3482. You said, I think, that the Poulsen system was, in your opinion, one of the best?—I mentioned it as a great step in advance, and the probability is that the basis—the principle involved in it—would become quite general in all other systems—that is, all systems will work with persistent currents rather than with rapidly damped ones.

3483. Assuming the Poulsen system to be a step in advance, that step in advance has led immediately away from the possibility of intercommunication?—I do not think so, Sir.

3484. The Poulsen apparatus at present cannot communicate with the sparking apparatus, can it?—The Poulsen system at present is simply in an experimental stage. I am speaking of the principles involved in it, which are practically the use of these continuous persistent currents; and I say this—that the use of those currents is so promising as an economic agent in the matter that I think all companies will have probably to adopt the persistent currents in preference to the present damped currents.

3485. The object of the Convention is to establish facilities of intercommunication, is it not?—Facilities and regularity of method—uniformity—rules and regulations.

3486. And the Poulsen system using the persistent current you take to be a step in advance?—I take it to be so.

3487. As it works at present the use of the Poulsen system precludes the possibility of intercommunication?—I quite disagree with that—absolutely.

3488. You mean to say that an apparatus working on the Poulsen system at present can intercommunicate, say, with the Marconi or the Lodge-Muirhead apparatus?—I know of no reason why it should not.

3489. Mr. Maskelyne, who was describing the Poulsen apparatus to us here, told us definitely that the Poulsen apparatus could not intercommunicate?—In its present form.

3490. In its present form?—Yes.

3491. Though

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Mr. Gwynn—continued.

3491. Though in its present form the Poulsen apparatus, you say, represents a step in advance?—I consider that the use of persistent currents—which is a peculiarity introduced by Poulsen—is a step in advance, undoubtedly.

3492. It is the only apparatus using persistent currents?—At present. The Lodge-Muirhead have introduced the persistent currents also. I have not seen it personally.

3493. The Lodge-Muirhead system, operating as a commercial company, do they use the persistent current?—No. In the case of the Andaman Islands and in India and in Trinidad—the only places I am personally acquainted with—they use the spark.

3494. They use the spark system?—Yes.

3495. That is to say, the only system which at present is proposing to use persistent currents for public communication is incapable of intercommunicating with the existing installations? In its present form.

3496. In its present form and in their present form, would you not apprehend, therefore, that under the Convention those companies which own existing installations might object to abandoning their existing installations to adopt a form of installation which would enable them to communicate with some new system?—It is a very small addition to existing apparatus. It is not a question of any change or removal: it is merely a change in the mode of generating the waves.

3497. Was your attention called to the fact that Mr Maskelyne who came here to preach the advantages of this Poulsen system, stated definitely that assuming the Convention to be ratified it would be necessary for ships, if they wished to use the Poulsen system, to carry a double set of apparatus?—Did he say so in his evidence?

3498. He said so.—It surprises me.

Mr. Arthur Lee.

3499. I understood him to say that it would be necessary to carry the De Forest system as well; that is the reason why the Amalgamated Radiotelegraphy Company maintain these two systems, because without the De Forest they would be unable to intercommunicate?—In its present form. That is really what I am trying to impress in my replies to Mr. Gwynn. What I want to imply is that scientifically, from the electric wave theory of the whole thing, I see no reason why all these systems could not easily and economically be made interchangeable. Of course if we are to take it as a fact that you must carry two systems, why, that is a very serious objection at once; but we have the fact that at Scheveningen, and in the North Sea, we have got ships intercommunicating between the Marconi system and the Telefunken system.

3500. Both spark systems?—Well, they were or they are “spark”; probably they will both of them become “persistent.” I gathered from Mr. Marconi’s evidence that he was experimenting in the direction of persistent currents.

Mr. Gwynn.

3501. I would just like to ask a question upon one other thing: Have you had any practical experience yourself of controlling a wireless telegraphy service?—Not since I left the Post Office, and that was on my own system, as a matter of fact. I have had no practical charge.

3502. You have had no practical experience of the business of controlling a large commercial service?—Not since I left the Post Office in 1899.

3503. At the Post Office in 1899 no considerable wireless telegraphy installation had been made, had it?—I have mentioned three that we had charge of.

3504. Were those for public communication?—Yes; the one to the island of Mull (that sent commercial messages) and the one to Rathlin Island is working still and sending commercial messages.

3505. And doing a large volume of business?—I will not say “large” because it is a small place.

Mr. Arthur Lee.

3506. That is shore to shore?—That is shore to shore.

3507. I assume there is not the same difficulty in organising shore to shore stations as there is in organising ship stations?—Certainly not; there is much more difficulty in organising the ship station; and one of the great reasons why I support so strongly the Convention is that it will produce one grand organisation.

Sir Gilbert Parker.

3508. I should like to ask you one question arising out of some questions asked by Mr. Gwynn. Suppose the Convention to be ratified and certain systems established common to all companies which intercommunicate—suppose the Poulsen or the Marconi system developed some factor such as you have spoken of (persistent waves) to such a degree that it would be advisable to have this development incorporated into the general system, might there not be some difficulty perhaps in securing this scientific development and improvements because a number of countries must be found to agree before it can be imposed?—There never has been any difficulty yet in connection with the telegraphic Convention in introducing uniformity of practice, and I see no reason why there should be difficulty in wireless telegraphv.

3509. That is, “uniformity of practice”; but suppose it was left, we will say, free—real free trade—and the Post Office gave licences more readily to a highly-developed system than to a moderately well-developed system, would it not tend to general efficiency if a company which brought in a new improvement could, as it were, through free trade impose that upon the commercial public quickly, and could it be secured—that improvement under the Convention—as quickly as under the present system?—I think the Convention would rather tend to encourage improvement, and it would mean the intercommunication of all new facts and all new information. The merits of a particular system would

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soon come to the front, and it would be adopted as it is now in the cable world. The Bureau at Berne issues facts communicated to it to every contracting party, and constantly improvements are communicated there which are readily, if they are real improvements, accepted and adopted. So it would be with wireless telegraphy. Everybody interested in wireless telegraphy would endeavour to secure the very best system, and as it never could mean anything very serious in the question of expenditure, there is no doubt that under the encouragement of the Convention improvements would rapidly extend all over the world.

Mr. Gwynn.

3510. I should just like to make one correction. I think *Sir Gilbert Parker* and I made ourselves responsible between us for saying that Lieutenant Loring or Captain Payne had said that an operator could be trained in a fortnight; I find that *Mr. Muirhead* was the person who said it?—It rather surprised me.

Sir Gilbert Parker.

3511. This is what *Mr. Muirhead* said: "If at the start you had a telegraphist—a man who had been operating, say, at the Post Office—well, they know a lot of things at the Post Office, and it would not take him very long. It might take him perhaps a fortnight?"—I do not agree with him.

Mr. Gwynn.

3512. May I ask you if your attention happened to be called to *Mr. Muirhead's* statement that the Marconi system was the result of the co-operation between *Mr. Marconi* and the Post Office?—I should really like to say there has been a great deal of nonsense said before this Committee about the relations of other people with me at the Post Office. For instance, let me take as an illustration what has been said about *Dr. Schwaby*: He came over here—a great German scientist—on my own invitation; he came to the Post Office and was welcomed; I took him down to Cardiff to the very first experiments that ever were made across the water; those were the experiments in 1897; he was a most charming individual; he was very well received and very well treated by everybody; and in this very room he has been accused of stealing information that he got on that occasion. I think it was quite disgraceful that he should be so accused.

Mr. Sydney Fuxton.

3513. That was said by *Mr. Cuthbert Hall*, was it not? Is what you are referring to *Mr. Cuthbert Hall's* statement?—It was one of them. He absolutely accused him of stealing. I should like to have it put on record that I entirely dissent from the answer containing that statement.

Chairman.

3514. However, you do not agree that an operator can learn the special work of wireless

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telegraphy, even if he is a skilled telegraphist to begin with, in three weeks?—Certainly not.

Mr. Gwynn.

3515. Do you agree with this expression of *Mr. Muirhead's*—if I may put it in the concrete: I think *Mr. Marconi's* invention is largely due to the Post Office and not merely to *Mr. Marconi*?—No, I do not.

Sir Gilbert Parker.

3516. In connection with the question just asked by the *Chairman*: in saying that an ordinary telegraphist—that is to say, an ordinary expert telegraphist—could not learn the work of the wireless telegraph instrument in two or three weeks, could you approximately say how long it would take?—I think that such a time is ridiculously short to acquire a knowledge of the peculiarities of wireless telegraphy, but I would rather say that a man could not possibly be an expert so as to be left in charge of a wireless telegraph station under at least six months.

Mr. Arthur Lee.

3517. A question was put to you just now with reference to the Marconi organisation, and you described it as an example of "commercial inefficiency." Could you explain on what you base that opinion, because the evidence given us by the Marconi Company tended to show that in the messages that had been sent there had been an extraordinarily high standard of accuracy and certainty of transmission and so forth?—The view I desired to express was rather inefficiency in the development of a commercial business—not in the conduct of that business. I have every reason to believe that the business as a business between ship and shore and ship and ship is very well conducted. I was speaking solely of the commercial management of the business.

3518. That is a very important correction, because we are not concerned in any way with the commercial management of the Marconi Company, but only with its use as a public telegraph service; and you say that the organisation in that respect is highly efficient?—So far as I can see, certainly.

3519. Then you have expressed the opinion very confidently, I understand, that it is possible to say at the present stage of development of wireless telegraphy on what lines it will develop in the future?—Yes.

3520. That in fact a point has been reached at which the principle is fixed, and there can be no divergence from that principle?—What I distinctly say is that it is just as well developed now as submarine telegraphy was when the Convention dealing with submarine cables was signed in 1865. That is what I meant.

3521. I do not mean as regards the analogy, but as regards the actual fact, you do not think it is possible that the science may develop on an entirely new line of departure which would make the

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the regulations which would be agreed to in this case inapplicable?—I will say this, that at present the system of wireless telegraphy is in a practical stage and fit to be developed for large commercial business. On the other hand, I never will anticipate the future, for I have learned this, that, in the electrical world particularly, the word "impossible" is out of our vocabulary, and what is going to occur in the future is what has occurred in the past—that is, the absolutely unexpected.

3522. Quite so. I was rather surprised at the impression your previous answer gave—that the thing was more or less stereotyped now?—I do not admit that for a moment. I think I have made that quite clear. What I do say is that it is now in a sound and practical stage.

3523. Following up your suggestion that in electrical matters it is generally the unexpected that happens, do you agree with the suggestion which has been made, I think, by one or two of the scientific witnesses—certainly by Mr. Marconi—that it is too early in the development of a science of this kind, that it would be premature to attempt to impose a rigid series of regulations, that that stage may arrive sooner or later, the stage at which it would be possible to impose those regulations, but that at the present stage of development it is premature to do so?—I do not at all agree with that, and I think my last answer about the practicability of the business is a sufficient answer to that question. We have now reached a practical stage when a Convention such as is now proposed is absolutely imperative.

3524. But you do not think that the regulations which are framed, as far as one can judge, mainly to regulate the spark system are inapplicable to a development along the lines of the persistent current system?—In no way. Clauses 2 and 3 in the Convention define the two things really which only practically require definition, that is the wave length and the power. I think that is quite sufficient. It leaves an ample field for any advance of the invention of any person. It is not a rigid line at all.

3525. We hear your opinion with great respect, but are you aware that that is exactly contrary to the opinion expressed by Mr. Marconi, who is also eminent in his profession?—I cannot agree to it.

3526. Then with regard to the position of England as affected by the ratification or non-ratification of this Convention, you have told us that England had built up the present position of wireless telegraphy and I think you admitted that she holds at present a commanding position in that respect?—Yes.

3527. That being so I do not quite understand your argument as to how she could possibly lose that position in the event of the Convention not being ratified. You took the case of Germany and you told us that German ships were obliged to communicate with the British stations from geographical considerations because they are obliged to pass close to the English shores; but you did not quite make it clear to us, I think, why or how the advantages which we enjoy geographically could possibly be diminished in the event of our not joining the Con-

Mr. Arthur Lee—continued.

vention. Would not commercial convenience still make it imperative for ships to communicate with England?—Just so. You see this: at the present moment the chief business of these ships that carry the Marconi system is with Britain; although they carry a great many foreigners they are usually emigrants.

3528. That condition would continue, would it not, whether the Convention were ratified or not?—Yes, the reason why they fit themselves up with Marconi apparatus is because there is no other system on our English coasts to communicate with.

3529. Supposing they were not fitted with Marconi apparatus, they would still find it necessary to communicate through English stations, would not they?—The reason why they have Marconi apparatus is because the Marconi Company have put their apparatus there on very good terms.

3530. That I can understand; but assuming they decide to abandon the Marconi system and to instal the Telefunken system, we will say, they will still be compelled, will they not, by considerations of commercial convenience, to use the British stations in preference to any other, whether there is a Convention concluded or not?—Not if the other nations fit up a system that is equally available. Take, for instance, Norway and Sweden and Denmark. Suppose they were all fitted up with "Poulsen." Take a small part of Germany, suppose they had the Telefunken. Take Holland and Belgium and France with its Belfort or Rochefort system, and Spain with its great system, a ship working under the Convention would be able to use any apparatus to communicate with any shore and with any ship.

3531. Would not this condition be perfectly well established if what you call free trade were permitted, and every company was permitted to set up its stations anywhere to which Mr. Marconi, I understand, has raised no objection? Would not that facility of communication be equally well established?—No, it would be useless without the arrangements provided for by the Convention. You want to have a uniform system. You must remember this, that every country has its own telegraph department, its own telegraph arrangements, its own system of distribution, its own charges and its own signals. Then, by establishing this wireless telegraphy, you make the system of the sea applicable to every administration, and if these rules and regulations are issued it is perfectly immaterial to any ship whether off the coast of Spain (the only difference would be the language) or the coast of France, or of England, or of Norway, or of Sweden, or anywhere else; they could communicate under this Convention on fixed regulations which were approved of by every nation—it facilitates business.

3532. You would not suggest, I presume, that foreign liners of any kind would actually alter their normal course to proceed off a Spanish station or a French station in order to communicate?—Oh, no.

3533. They will still be bound to the same lines, and those lines carry them past the English wireless stations whatever the system they may be on?—Yes.

3534. Therefore

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3534. Therefore bound to communicate?—And under the Convention they would be able to communicate, but without the Convention they could not.

3535. I differ?—They cannot do it unless they adopt the principle of intercommunication.

3536. If every system were allowed to establish its stations along the coast, would not the foreign liners still be obliged to use our stations from the point of view of commercial convenience, whether they resented our non-adherence to the Convention or not?—Of course they would if they retained their present route and carried the same passengers—they would practically adopt the most convenient system to them.

Mr. Sydney Buxton.

3537. If they were intercommunicating?—Yes, if they were intercommunicating.

Mr. Arthur Lee.

3538. Therefore it is not the case as I think you rather suggested in your original evidence that if the Convention is not ratified England will lose the advantages of its present position in wireless telegraphy?—I think if England did not ratify the Convention it would encourage all the other nations to put up their own shore stations and make confusion more confounded than it is now.

3539. I thought you were in favour of free trade?—Of free trade plus the Convention.

3540. Not free trade without any restriction?—No; I could not admit free trade without regulation.

Chairman.

3541. You do not desire unregulated free trade?—"Free trade" is not a good description; I ought not to have used the word. It is looked upon as a political word; I am sorry it comes into the facts at all; I think "equality of opportunity" is a better phrase.

Mr. Arthur Lee.

3542. "Equality of opportunity" surely would encourage the setting up of stations anywhere by any company?—Under proper regulations; and of course all countries, whether England joins the Convention or not, will regulate wireless telegraphy in their own domains, just as we have done here now.

3543. But do not you rather suggest that the Convention will restrict the setting up of stations?—Quite the very reverse, Sir; I think it is what is really wanted to encourage the development of wireless telegraphy.

3544. I am sorry to press this point. I think you said just now that if we did not ratify, foreign countries would set up more stations?—You put the question to me as I understood, if the ships retain their present system, and I said: Certainly they will.

3545. That was my main point, and England will not apparently—she cannot—lose any of the advantages she enjoys from her present geographical position whether the Convention is ratified or not?—No, she would not lose what

Mr. Arthur Lee—continued.

she has got now perhaps, but she would lose the development which is sure to occur when this Convention is ratified.

Mr. Sydney Buxton.

3546. I understand Mr. Lee has been asking you whether, supposing Great Britain did not ratify, and all the other nations did ratify, the present foreign ships which have a system which declines to intercommunicate would not under the Convention be forced to give up that system and adopt a system which will intercommunicate?—It would be their policy to do so whether they did so or not.

3547. Would not they be forced by Article I. to do so?—Those who accept the ratification, of course.

3548. I am speaking of the foreign nations who ratify?—Certainly.

3549. That being so, will the result be that the present organisation of the system which declines to intercommunicate will be very much diminished, that is to say, they will lose a large number of the existing ships which communicate with them at present on their non-intercommunicating system?—I should say that that would lead to what appears to be spoken of so frequently in the evidence as "chaos."

3550. On the other hand I gather from what you have said that if we ratify the Convention and introduce intercommunication generally that will maintain, and in fact encourage, English stations?—Certainly.

3551. If their working is based upon intercommunication I gather that you think their development will proceed, but without this Convention you think it will be checked?—That is the sum of all I have said, Sir.

3552. I understand you to be in favour of a system which will develop wireless telegraphy generally, but for that development I gather that you want international regulation to prevent confusion?—Exactly, uniformity of practice and regulation.

3553. And is it your opinion that the result of the regulations of the Convention will be to encourage development?—I cannot put that higher than I have already.

3554. I was trying to sum up the encouragement the Convention would give in the matter of British development?—Certainly.

3555. And the diminution of confusion and interference?—That is exactly it.

3556. Then with regard to the point raised by Mr. Gwynn about some new system that might be invented, or some new system of development, I also understand that you think the Convention will not hamper that form of scientific development, but will encourage it. Is that so?—It would tend certainly to encourage it.

Mr. Gwynn.

3557. Does not that mean that it would tend to promote the creation or the furtherance of systems which are physically incapable of intercommunication?—Not under the Convention.

3558. I

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[Continued.]

Mr. Sydney Buxton.

3558. I gather from what you have said that the development of these wireless systems will be encouraged and assisted by the Convention and not discouraged and prevented?—I quite agree; that is one of the chief points.

3559. Therefore the result of the Convention would be that the existing systems would be free to develop and that new systems would be encouraged and not discouraged?—I agree.

3560. As regards the regulations, would not your view be that they are regulations which are fitted for the organisation of any wireless system, however developed?—Quite so.

3561. And that the effect of these regulations would be to give sufficient elasticity for the development of any system of wireless telegraphy?—I think so.

Mr. Arthur Lee.

3562. Dealing with that last answer, I understand you reject the opinion of the Poulsen Company that they are unable to communicate?—I do not associate myself at all with their opinions. I have given you my own free opinions.

3563. But assuming that their opinion was the correct one?—It is contrary to mine; I disagree.

3564. May I finish my question? Assuming that their opinion was the correct one, I assume that that would occasion a modification of your answer, assuming that you agreed to that?—If I agreed, or was likely to agree, I should have expressed that opinion.

3565. That the present regulations are applicable?—No. The point is this (at least you will tell me if I am wrong—I was not aware of it): that Mr. Maskelyne had stated that the Poulsen system and the Marconi system were not interchangeable in their present form.

3566. Intercommunicable?—I say if they are not so in their present form they could easily be made so.

Chairman.

3567. Do you base your opinion on theory or on practice?—On theory—on science. I know the Poulsen system pretty well, and have studied it very carefully, and I express that opinion that I gave as a scientific opinion, and I am prepared to support it.

Mr. Arthur Lee.

3568. Mr. Maskelyne based his statement on actual practical experiment?—I will look into that; I have not studied his evidence very particularly.

3569. I should just like to finish this point. There is a direct conflict of scientific opinion between your evidence and that of the representative of the Poulsen Company, but supposing it became a scientific fact that the Poulsen system was not able to intercommunicate with a spark system, such as the Marconi, would you then maintain that the regulations that have been already adopted under the Convention are suitable for the regulation of both systems?—It would not alter my opinion one iota of the Convention.

Mr. Arthur Lee—continued.

3570. Of the regulations?—Of the Convention; but it would tempt me to give the same answer about the Poulsen system as the celebrated answer given by George Stephenson about the cow. He said: "It would be very bad for the cow"; and if the Poulsen system does not intercommunicate with another system it is very bad for the Poulsen system.

3571. That brings us to a very interesting point, I think. At least to me your answer suggests that the Poulsen system will be placed at a disadvantage by these regulations, and that therefore these regulations will, in a sense, tend to stereotype the spark systems, which are on a slightly different principle?—It might do something of that sort if it were scientifically difficult or impossible to make the two intercommunicate, but as I believe it is not difficult or impossible, I say there is nothing in it.

3572. I started out with the assumption that you were wrong on that point, because it has been stated freely that you are wrong in other evidence; and supposing that you changed your opinion on that point, would you not also have to change your opinion with regard to the suitability of these regulations?—I think not. I do not see how they would affect it.

Mr. Gwynn.

3573. If I might, I would just put it in this way: Assuming that the more the systems of "wireless" develop in perfection the less they are capable of intercommunication with each other. Assuming that, you would not be so clear that the Convention tended to promote the development of the art?—But you ask me to assume what I cannot for one moment admit.

3574. That is the contention on the one hand of the Poulsen system people, and on the other of Mr. Marconi?—I want to emphasise as strongly as I can the fact that I am a perfect believer in the necessity and efficacy of the Convention, and if there are any objections such as Mr. Lee raises to the Poulsen system, or any other system, it is very bad for that system, but it has nothing to do with the Convention or the business of wireless telegraphy generally.

3575. That is to say, both the Poulsen system and the Marconi system may find the Convention a hindrance to their free development. You think the necessity of enforcing the Convention ought to outweigh the inconvenience to these systems?—Most distinctly.

Mr. Sydney Buxton.

3576. On that point, assuming for the moment, as you did assume just now to Mr. Gwynn, that there is a system which is not intercommunicable, is not that met under Article IV. of the Protocol of the Convention, under which such a system, while maintaining all the benefits of the regulations to prevent interference, and so on, is excluded from the obligation of intercommunicating?—It could be met under Article IV.: "It is understood that, in order that scientific progress may not be impeded, the provisions of Article III. of the Convention do not prevent the possible use of a system of radiotelegraphy incapable of communicating with other systems, provided

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[Continued.]

Mr. Sydney Burton—continued.

provided always that this incapacity is due to the specific nature of the system, and is not the result of arrangements adopted solely with a view to prevent intercommunication." That applies exactly.

3577. That implies that if there is a system which cannot intercommunicate that is affected under that Article IV. ?—It is.

3578. But otherwise it has all the benefits in regard to interference, licence, and so on ?—Certainly.

3579. Assuming that there was such a system as that, would you say that it would in any way be injured of the Convention ?—It would lead to the attempted improvement of both systems.

3580. The Convention then would be to its advantage and not to its disadvantage ?—Certainly.

3581. And it would be meanwhile protected in its operations from confusion and interference ?—Yes.

3582. Mr. Gwynn in his cross-examination was asking you with reference to whether the Marconi Company was a monopoly, and I gathered from what you said that in your opinion they had at all events attempted to obtain a monopoly ?—Yes, in endeavouring to enforce their patent.

3583. Are you aware of the "terms of settlement" between Lloyd's and the Marconi Company, of December, 1905, with regard to that ?—No.

3584. Do you know whether this clause appears in that agreement—the "Terms of Settlement," "Lloyd's and Defendants, that is the Marconi Company, to do their best to persuade the British Government not to grant licences for the use of wireless telegraphy during the continuance of the agreement to any one but plaintiffs or defendants"; that is to say, to Lloyd's and the Marconi Company: Would you call that an attempt to obtain "monopoly" ?—I should say that looks like blackmailing, Sir.

Sir Gilbert Parker.

3585. Might I ask whether all the cable companies that existed as commercial enterprises in 1865 agreed to the International Telegraphic Convention ?—They were not all agreed.

3586. Do all the cable companies now—successful commercial enterprises—accept the Convention at the present time ?—I believe so—practically so.

3587. But are there not some exceptions ?—I think not.

3588. I have understood that there are ?—You are out of my depth now. I have had nothing to do with this part of the business. If you want evidence on that you had much better ask Mr. Babington Smith.

3589. You are not prepared to give evidence as to that ?—I am not from my own knowledge.

3590. Could you say whether the acceptance of the International Telegraphic Convention involves special technical instruction in the working of the cable ?—It does not.

3591. And whether the regulations do not relate solely to questions of code signals ?—Principally to the conduct of business.

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Sir Gilbert Parker—continued.

3592. I want to ask you one or two questions about past instances that have been given, because I am not quite clear in my own mind as to what you intended to convey. You said: Provided the Convention were established ships carrying other apparatus under the Convention belonging to other nations would not communicate with our coasts, because the Marconi system was established and the Marconi system declined to intercommunicate. Is there any reason why the Post Office should limit the stations to the Marconi system, and would not other systems, like the De Forest and the Muirhead systems, intercommunicate ?—That is a question you should ask the Postmaster-General.

3593. You are not prepared to express an opinion at all upon that ?—No.

3594. Can you express any opinion as to why the Post Office does not give licences ?—It is purely a question of policy; I could not answer that question.

3595. Perhaps you would not care to express an opinion as to whether free trade would not be established if licences were given to many companies—if it is not necessary to preserve certain distances between the stations—and if the principle of tuning is what it has been represented to be by Sir Oliver Lodge ?—Yes, I support that.

3596. You support that, but you can express no opinion as to why licences should not be granted for those stations ?—That is purely a question of policy, as to which I have nothing whatever to say or to do; it is wholly a question for the Postmaster-General.

3597. Of course, this question of policy does affect us in coming to any decision as to whether the Convention should be ratified or not ?—Certainly. I think you will get questions answered on this point by the Post Office.

Mr. Sydney Buxton.

3598. There is one question I want to make quite clear. There seems to be some doubt in the minds of some members of the Committee with regard to your attitude as to this: assuming there is a system which cannot intercommunicate for physical reasons, not because it does not want to intercommunicate, what view do you hold as to the effect of the Convention on that ?—I should say that the view I hold is this: that the Convention would force all systems to adopt some mode of intercommunication. I cannot possibly admit that any of them could work without intercommunication.

3599. You mean that a very small difference in the instrument, whatever it may be, is bound to bring about intercommunication between systems which are rather diverse ?—I think that it must.

Chairman.

3600. But you do not see any obstacle in the way of communication between spark systems and other systems ?—It is done now. I see no difficulty.

3601. You endorse the view of Sir Oliver Lodge, who took a different view to that of Mr. Maskelyne ?—Exactly.

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[Continued.]

Mr. Sydney Buxton.

3602. You have been able to put yourself in the position for a moment of assuming that there can be such a system as a non-intercommunicating system; what effect do you think the Convention would have upon that system taking the whole matter into account?—I cannot bring my mind at all, Sir, to believe that such a condition will ever arise.

3603. I thought you had brought it to contemplate that possibility with great difficulty, in reply to Mr. Gwynn?—No.

Mr. Arthur Lee.

3604. "So much the worse for the coo"?—No, not the Convention. I have tried very hard, but I will put it in this way: I take the Convention first, and I say that everything in connection with wireless telegraphy must be in accordance with that Convention; if any systems are introduced which do not comply, or cannot comply, with the Convention, with its numerous loopholes like the one which has been pointed out to me, then I say it is a bad thing, for the system.

Chairman.

3605. That very loophole that you allude to gives the power of exemption?—It does.

3606. Where there is difficulty of communication?—It deals with the very point.

Sir Gilbert Parker.

3607. Suppose a company like the Poulsen Company or the Marconi Company refused to intercommunicate, and took a long stride forward in development—secured some greater perfection than had been hitherto secured—do you think then that it would be the worse for Marconi or the worse for the other nations and for the commercial service throughout the world generally?—You want me to anticipate the unexpected. Well, we can only deal with what we know, and we know that we have got before us a practical system, one that is very well understood, and I see no difficulty in carrying out the Convention as regards intercommunication particularly. I may be wrong, but it is my own strong opinion.

Mr. Gwynn.

3608. But I understood you to say definitely that as a matter of practical consequence under the Convention the system which proved itself incapable of intercommunication would tend to disappear?—Yes.

Mr. Sydney Buxton.

3609. It is protected by this Protocol is it not?—It is protected by that; they could work under that, but they could not come into the "swim" of wireless telegraphy.

DR. J. A. FLEMING, F.R.S.; called in, and Examined.

Chairman.

3610. Will you tell the Committee what is your connection with the Marconi Company?—I may perhaps be permitted to introduce myself to the Committee by saying that I am Professor of Electrical Engineering in University College, London, and have occupied the Chair for 22 years; I am a Fellow of the Royal Society, a past Vice-President of the Institute of Electrical Engineers, and I am also connected with other societies. For 28 years I have been closely connected with the practical applications of electricity. In 1879 I was the Scientific Adviser of the Edison Telephone Company, and in 1882 I was appointed Scientific Adviser of the Edison Electric Light Company, and in 1883 of the Edison and Swan United Electric Light Company; and I have acted for 20 years in a similar capacity to numerous other corporations. With regard to wireless telegraphy. I have devoted much attention to the scientific side of it. Thirty years ago I was a personal pupil of Professor Clerk Maxwell at Cambridge, and I followed closely the discoveries of Hertz, in 1887, and described them in my books. In 1899 I was appointed Scientific Adviser of the Marconi Company, and I am so acting at the present time. I have assisted them in the scientific and patent matters, in the

Chairman—continued.

design and engineering arrangements of their power stations and invented for them appliances used for wireless telegraphy. I am constantly experimenting on the subject, and I have an experimental station at University College by licence of the Postmaster-General, and I have made a special study of the history and the scientific side of the subject.

3611. What connection have you with the Marconi Company now, if any?—At the present time I am the scientific adviser of the Marconi Company.

3612. You have read, I understand, the evidence already laid before the Committee on the systems of wireless telegraphy now in use, do you agree with this generally?—In reading over the evidence I am much impressed with the rather disconnected manner in which the present state of wireless telegraphy has been represented. If the Committee will allow me I should like in a few sentences to endeavour to give a more compact view of the facts. Honourable members are already aware that at the present time no other system of wireless telegraphy has any practical importance except that employing electric waves. These electric waves are undulations set up in the universal aether which travel with the speed of light; they are created by establishing in some wire

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Dr. FLEMING, F.R.S.

[Continued.]

Chairman—continued.

wire or wires rapid electric currents. When these waves fall on other antennæ or aerial wires they create similar but feebler currents, and these are by means of something called a detector made to actuate telegraphic instruments. All the so-called systems employ electric waves, antenna and either an earth connection or something which is equivalent to it—viz., a connection through a condenser. The differences between the systems now in use are these—first, in the mode of producing the rapid electric currents which give rise to the waves and radiate from the antenna, and, secondly, in the kind of instrument used for detecting the electric currents which are set up in the receiving antenna, and at the present time three types of waves are employed which are represented by the diagrams in the chart on the wall. The first are called the intermittent strongly-damped waves. In that case what is radiated from the antenna are a series of waves which rapidly subside.

3613. A great deal has been said in the course of previous evidence on the interference of wireless stations with one another. Do you think that this is inevitable in the present state of the art, or is it capable of being remedied? I think the answer to that question is embodied in pages from about four to eight of this memorandum, which we propose to put into our printed matter and circulate it to the Committee instead of taking you all through it, which we have not time to do now. Have you any statements to make for or against previous evidence which has been given by other witnesses?—Yes. In the answers I was about to give to the Committee I was about to traverse certain statements, or, rather, give reasons against them.

3614. Do you desire to supplement those answers, or does the memorandum contain all that you wish to say?—No, the memorandum does not contain all. The answers I was about to give to these questions include a criticism of evidence that has already been given to the Committee. It is not altogether included in the memorandum. One of the important points I should like to raise, Sir, is the question of whether these systems as they are at present can communicate with one another. It has been stated, for instance, that the Poulsen system, which is a system intended to send out undamped waves, can communicate with other systems sending out damped waves. I wish to say that that can only be done by the sacrifice of the peculiar features of these systems. There is no necessity about it. The point I wish to insist upon in connection with the subject is this—that particular qualities of an electric wave are not determined simply by the wave length. There are four qualities in connection with every electric wave which must be considered. The first of these is the wave length, which is simply the distance the wave travels in the one vibration; the second is the rate at which the waves die away in each train, which is called the damping; the third is the amplitude, which may be taken to be the height of the wave, and the fourth is the interval between the wave trains.

3615. What do you mean by "wave trains." In what way would you define a "wave train"?
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Chairman—continued.

—"Wave trains" are the number of waves the take place before entire subsidence takes place. In the case of the damped waves, what is sent out from the antenna is not a continuous train of waves. I might illustrate it in this way. Consider a man making short blasts of a trumpet at intervals—that corresponds with a strongly-damped vibration; consider a man making prolonged blasts on a horn—that corresponds with a feebly-damped vibration; now consider the continuous sound of an organ pipe—that corresponds with undamped oscillations, and each transmitter has its own appropriate receiver. Each of those transmitters is in correspondence with its own receiver, and therefore intercommunication presupposes an identity of apparatus. Intercommunication could not be effected between a transmitter giving rise to undamped waves and a receiver suitable for damped waves unless by sacrificing the specific features of the apparatus.

3616. Do you then contend that intercommunication between the Poulsen system and the sparks system is impossible or at any rate difficult?—It is impossible without sacrificing the specific features of the apparatus. I cannot deny that the apparatus can be altered to do it, but it will not do it in the ordinary natural way.

3617. Your argument is, then, that it can only be done by prejudicing the effect of the instrument?—By sacrificing the peculiar features of it.

Mr. Gwynne.

3618. And the efficiency depends on the peculiar features?—The efficiency depends on the peculiar features.

Mr. Arthur Lee.

3619. Do you then mean that if the Poulsen system is made to communicate with the Marconi, that both systems lose some of their efficiency?—Both apparatus must be altered entirely to do it. They will not do it in their ordinary normal development.

3620. Will they be made less effective by such alteration?—Yes.

Chairman.

3621. In what way and why will they be made less effective by such alteration?—It cannot be denied that the apparatus can be so altered as to make them identical. The idea of intercommunication presupposes essential identity of apparatus. It is not sufficient simply to define the wave length and say the apparatus is to be arranged to work with a certain wave length. It will not do any such thing.

3622. You then take a contrary view from the evidence given by Sir William Preece and Sir Oliver Lodge?—I can only say that I am speaking from practical experience. I do not know how far Sir William Preece has had practical experience of the Poulsen apparatus. I have been working with it for six months, almost day after day, and I thoroughly understand its capabilities.

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3623. Supposing

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[Continued.]

Chairman—continued.

3623. Supposing that Great Britain did not ratify the Convention, have you any reasons for considering that this country would be placed at any disadvantage in regard to wireless telegraphy?—On the contrary, I am inclined to the opinion that if Great Britain did not ratify the Convention it would be a positive advantage. In the first place, if other nations do ratify they will be bound by the regulations of the Convention to employ certain wave lengths, and, as I have shown, a certain type of apparatus, while wireless telegraphic organisations in Great Britain will be perfectly free to adopt any other types of apparatus of different wave lengths, and they will make use of such a length as would be most advantageous to them, and in the long run that method must survive which would best serve the public interest. In the next place in this matter it is of the utmost importance to guard the interests of Great Britain. The dominions of the British Empire are scattered over many seas, and the welding of them together by lines of wireless intercommunication which cannot, like cables, be cut in time of war is of supreme importance. The question which has to be considered, I think, before everything else is, will the ratification of this Convention assist this country in keeping the lead in wireless telegraphy which it has now obtained, or will it drag it down and make it go behind other continental nations? The suggested advantage of ratification may be, in my opinion, more imaginary than real.

3624. Are you aware that the limitation of wave length was suggested by the Admiralty as necessary for their purposes?—It is possible that the advisers of the Admiralty have not taken into account the future development of wireless telegraphy sufficiently.

3625. Will you answer the question? Are

Chairman—continued.

you aware that the limitation of wave length was proposed by the Admiralty as a protection for their interests?—What limitation of wave length, may I ask?

3626. A limitation in the length of wave, the limitation which you said would be for the benefit of England if England stood out, and to the disadvantage of other countries if they remained—the limitation to which you object, and say it would be to the advantage of England if she stood out?—I think I have not made myself quite plain on that point. What I meant or implied was this, that it is of the utmost importance, in my opinion, that Great Britain should not be tied down by regulations in the development of wireless telegraphy. The art at the present moment is so young it is impossible to say what the next improvement will be. The regulations will tend certainly to hinder improvements in wireless telegraphy.

3627. I think, Dr. Fleming, you will understand this is evidence on which cross-examination on the part of the Members of the Committee would not be of very much use. Under those circumstances we will have your ample memorandum printed and circulated among the Members. The *viva voce* examination-in-chief would be of little use without the full cross-examination by the Members of the Committee?—May I be permitted to add to that statement?

3628. Do you wish to make any further short statement at the present time?—I am afraid it could only be done by reading the greater part of this supplementary memorandum.

3629. It would be very much better for us to be able to read that. If you have a supplementary memorandum send it in with the other, and they will be printed together. (*Vide* Appendix No. 9.)

Tuesday, 14th May 1907.

MEMBERS PRESENT :

Mr. Adkins.
Mr. Sydney Buxton.
Sir John Dickson-Poynder
Mr. Gwynn.

Sir William Holland.
Mr. Lambert.
Mr. Arthur Lee.
Sir Edward Sassoon.

SIR JOHN DICKSON-POYNDER, BART., in the Chair.

COMMANDER PAYNE, R.N., again called in, and further Examined.

Chairman.

3630. We have asked you to come before us again to answer a few more supplementary questions to those which you gave us in your first evidence. You told us then, I think, that you were not a British delegate at the recent Berlin Conference, you were not?—No.

3631. You were a delegate at the previous Berlin Conference in 1903?—Yes.

3632. Will you explain shortly to the Committee your position as regards wireless telegraphy at present in the Royal Navy?—I am at present the chief Technical Adviser to the Admiralty on all points connected with naval wireless telegraphy; I have studied the subject of wireless telegraphy since its general introduction into the Navy in the year 1900, and since then have been constantly employed in the work of developing this means of communication for naval purposes. I am now practically responsible for the designs of all wireless telegraphy instruments introduced into the Service; I am also responsible to a great extent for the organisation of wireless telegraphy signalling in the Fleet in all its details, and for the training of the officers and men employed in this work.

3633. Did you form any views as to the desirability or otherwise of Great Britain being a party to the Convention before the recent Berlin Conference?—Yes; I was naturally much interested in the matter, having previously been one of the British delegates, and also because I considered it my duty to study the question from a naval point of view. Although I had no dealings with the delegates before the Convention, I had studied and argued out the various points on board the "Vernon," from a general point of view of British interests, as well as from the naval point of view, and although my opinions as regards British interests may not be of any particular value I should like to say that I had considered the points of British interests prior to this recent Berlin Conference as far as I was able to do so and had my own opinions on them.

Chairman—continued.

3634. Now can you tell the Committee what your views were as to joining an International Convention previous to the Berlin Conference, and whether the views that you held then are the same that you hold now?—My feelings were that the organisation already established by the Marconi Company would be of great benefit to Great Britain if it could be more fully extended, and that a Convention that tended to take away from Great Britain her strong hold over wireless telegraphy communication would be detrimental to her interests, also a feeling that Great Britain, being only one amongst a number of Powers, would, had she gone over with the determination to join the Convention, have to agree with the voice of the majority by limiting her free choice, although the point under discussion was detrimental to her interests. This being my feeling at that time, I should have felt inclined to oppose the Convention with a view to preventing any countries agreeing to it, and so to keep the monopoly of wireless telegraphy in British hands. Since studying the Convention and the rules drawn up by the contracting parties, my views have been considerably modified for the following reasons: It is apparent to my mind that had Great Britain stood out of the Convention a large number of Foreign Powers would have joined the Convention, so that the idea of a British monopoly of wireless telegraphy all over the world was out of the question. This being the case it seems to me that efforts had to be made to obtain for Great Britain the benefits she would have received from a world-wide monopoly. These advantages I consider principally to be those of general communication under one universal organisation. The Convention, to my mind, provides for these, and I consider that the rules and regulations have been framed in such a manner as to remove the feeling I had that Great Britain might be giving away the position she obtained by being the first in the field; and further, that she will derive

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Commander PAYNE, R.N.

[Continued.]

Chairman—continued.

derive considerable benefits by such an agreement, because it will overcome the objections that would have arisen due to a monopoly system. That is to say, the allowance that is now made for free competition will tend to increase the development of the science for the benefit of the public throughout the world in a manner which could not have been hoped for under the conditions of a British monopoly. Had Great Britain not had a voice in framing the rules and regulations to suit her requirements other rules and regulations might have been framed by the Contracting Powers which would have been to her distinct disadvantage.

3635. Could you enlarge on a few points to show why you consider the Convention of benefit to Great Britain?—It is my opinion that the organisation which would have followed an all-British monopoly would have had for its principal advantage the means of allowing all ships to communicate with stations at home and abroad, under the same organisation. The Convention allows us to obtain this benefit. That is to say, the Governments will now control by common consent their various companies in such a manner as to make a general organisation for communication purposes possible. The only other alternative if the majority of Governments have agreed to the Convention and Great Britain stands out seems to be to allow a large company owned by Great Britain, who refuses to communicate with other systems, to compete against an organisation of Governments. This state of affairs seems to me to defeat one of the special objects Great Britain had in view, in that a number of her ships would be unable to communicate by wireless telegraphy with stations abroad to which she was carrying out her trade. This alternative seems to lead to the following possibilities: that other British companies wishing to establish their systems would be tempted to combine against the large company and make agreements with foreign Governments to carry out the terms of the Convention, so far as intercommunication is concerned, in order to get traffic, and to allow ships the facilities of communicating to stations in England and in British territories. The ships fitted with these systems would be in a position of great advantage as compared with those fitted by the large company (which does not agree with communication with other systems), as they would be able to communicate with England and with all countries that had adopted the Convention. Should such a procedure be adopted it seems only natural that at any rate some of the ships fitted with the large company's apparatus would be desirous of leaving the large company. In such a case the position of Great Britain would then be that a number of her ships and stations would be desirous of working under the rules of an International Convention over which she herself had no means of control.

3636. Then do you consider intercommunication between various systems of great importance?—Yes, I consider that intercommunication under one organisation is of vital importance, and I would further add that it seems to me that one must definitely settle this

Chairman—continued.

point in one's mind before one can arrive at any conclusion with respect to the Convention being sound or otherwise.

3637. Do you consider that there are any technical difficulties in the way of intercommunication between different systems?—No, I do not consider that there are any difficulties that cannot be overcome. Every system at present in general use, as far as I know, is capable of interchanging messages. At present the general system of transmitting by wireless telegraphy is known as spark telegraphy. Now in order to put before the Committee the directions of improvements that have been made in spark telegraphy since its original introduction it will be necessary to touch on the form of waves that have been used. At first a very strangely damped wave which has been likened to a blow was employed. This system had for its principal disadvantage that of interference. It was difficult to design receiving instruments which would be selective for different wave lengths if these highly damped waves were employed by the transmitting apparatus. Accordingly various other types of transmitting instruments were gradually introduced capable of transmitting less heavily-damped waves, or, that is to say, more persistent waves, to obtain selectivity, so that different wave lengths should not interfere with one another. It was then necessary to introduce certain modifications to the receiving instruments in order to take full advantage of benefits derived from what we may call the mediumly-damped waves. Now, further developments are being tried to make the waves still less damped so as to obtain still further selectivity. If this method proves successful, which no doubt it will do in time, the receiving apparatus will need further modification to obtain the full benefits from it. During the change from highly-damped waves to mediumly-damped waves no difficulty was experienced in intercommunication, the instruments were gradually modified to get the best attuning; similarly, in my opinion, the mediumly-damped waves will be able to communicate with the still less damped waves, which have been given the name of "undamped waves." I have said all this to show that there is no marked line of division between spark telegraphy and the so-called continuous wave wireless telegraphy, and to remove from the Committee's mind the idea that the undamped wave system is something utterly unforeseen and entirely new in wireless telegraphy development, but merely the natural course of evolution. I have had practical experience of the highly damped and mediumly damped wave systems working together and also the mediumly damped and continuous waves working together, and am therefore speaking from a knowledge of the facts.

3638. In your opinion would the provisions of the Convention in any way stop or hinder the scientific development of wireless telegraphy?—Most distinctly do I consider that the Convention will assist the scientific development of wireless telegraphy as it will lead to healthy competition.

3639. And if Great Britain ratified the Convention do you consider that it would be beneficial or otherwise to naval wireless telegraphy interests

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interests?—I am most decidedly of opinion that it would be beneficial to the Navy to ratify the Convention, for the following reasons: (a) If Great Britain is a party to the Convention the allotment of wave lengths between 600 and 1,600 metres solely for naval purposes leaves that range free from interference. It must be apparent that this will be beneficial to the Navy for working out its organisations during peace time and developing by practice in a manner which otherwise might be hampered by interference from commercial work. (b) If Great Britain does ratify, in war time Great Britain would derive benefits from having all wireless telegraph stations on her shores, at home and abroad, available for communicating to any one of her ships (whether Naval or Mercantile Marine) at will, independent of systems in use, and the commercial ships would be in a state of organisation which would allow of their being used for naval purposes if required. For instance, it might be necessary to communicate with our transports and colliers and, in fact, with any ship, and this can only be obtained if the systems employed by these ships are capable of intercommunicating. (c) It is to our advantage to increase the development of wireless telegraphy for commercial purposes so as to be able to utilise our large Maritime Marine for naval requirements in war time for use as stated in (b). This development is, to my mind, likely to be more rapid if all Governments concerned are in agreement and the facilities for intercommunication generally increased. (d) If Great Britain does not ratify the commercial stations on the south coast of England will have to use wave lengths either under or over 600 metres. If they use wave lengths of 600 metres or under they may be interfered with by French stations or ships working to them, which would be a distinct disadvantage to those stations. If they were to use wave lengths of over 600 metres they would interfere with naval work, which would be placing our navy at a disadvantage to that of the Navies of other Powers. Both these appear to be detrimental to British interests.

3640. Have you anything further to say as regards the advantages that the Navy would derive from the Convention?—Well, I consider communication in war is a point of utmost importance. Now, provided that the Mercantile Marine are fitted with wireless telegraphy apparatus which is capable of communication with our naval ships, that the methods of signalling are known, and the wave lengths used are also known, there is no difficulty in arranging for intercommunication, I maintain that the relative advantages we should derive from having this means of communication open to us in war time, as compared with the benefit that other nationalities would similarly derive, is merely a question of the proportion of British commercial ships fitted with wireless telegraphy to those belonging to other Powers, and as we have the largest Maritime Marine we would be in the best position. To take one instance in war where wireless telegraphy intercommunication between the Navy and Mercan-

Chairman—continued.

tile Marine would be of vital importance I will take the case of the protection of commerce. To have at our disposal communications as to, say, the positions of the enemy's raiding squadrons on our trade routes from points other than those positions actually guarded by our own cruisers would be of indisputable value to the Navy. In fact it means that the number of our look outs is multiplied considerably; and the benefits I must point out are not one sided, they may be of infinite value to the Mercantile ships for their own safety.

3641. The Convention does not apply to ship to ship communication, does it?—No, the Convention does not apply directly to ship to ship communication, but the benefits to the Navy that I have brought forward are to my mind directly due to the Convention, in that the Mercantile Marine will be worked up to a state of efficiency, under a universal organisation of signalling, by being constantly in communication with shore stations. This state of affairs as regards communication between the Navy and the Mercantile Marine does not exist at present, nor could it exist if rival companies were at work under different organisations; as the Navy would not be able to allow for all the various organisations in their own organisation, as it would complicate not only the signalling arrangements, but also the designs of naval instruments, to an extent which would make the working quite impracticable.

3642. Do you consider that the organisation of wireless telegraphy for naval purposes is more difficult than that for commercial purposes?—Yes, distinctly so. I will take an example of a certain naval shore station, which received an average of over 2,000 coded words daily for a week and transmitted a similar number; within range of this station were many naval ships, I should say at least 50, fitted with wireless telegraphy. These ships were all required to send and receive messages, and the number of messages sent and received by one of them was about the same as that of the shore station. At the same time, other ships tried to interfere, but only one message failed to get through. The organisation which allowed for such conditions, I think you will see, had to deal with problems more difficult than those that could ever be expected at a commercial station.

3643. Have you had any personal experience yourself of working wireless telegraphy instruments in the manner that a wireless operator would have to do?—Yes, I have many times had a large number of ships entirely under my control for wireless telegraphy work, during which time I have been in sole charge of the transmitting and receiving instruments in the conducting ship; consequently I am quite conversant with the practical working of wireless telegraphy from the operator's point of view.

Mr. Gwynn.

3644. I would like to ask you this: I understood you to say just now that in the case you cited of several ships communicating with one shore

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Mr. Gwynn—continued.

shore station there was a definite attempt to interfere with the communication?—Yes, that is so.

3645. And although the attempt was definitely made the skilled operators at the shore station and on the communicating ships succeeded in getting their messages through?—That was not exactly my point. My point was that the organisation allowed it. It was not a question of the operator; it was a question of the naval organisation which allowed the alterations to be made so as to allow for this interference. I should not like to go into too many details, if I might refrain from doing so, about the naval organisation of wireless signalling; but my object was to show that the organisation is a thing that has been very carefully worked out by the Navy, and is more difficult, I consider, than any other organisation.

3646. I understood from your observation that in a case where interference was attempted you were able to exclude interference?—Due to organisation—yes.

3647. Due to organisation; and would that organisation be impossible for other skilled operators? Supposing that instead of its being a naval station on shore you had a Marconi station communicating with a Marconi manned ship in the face of attempted interference, would it be impossible, do you think, for the Marconi people to carry on their communications in spite of the interference?—I think it would be possible, yes.

3648. It would be possible?—Provided the wave lengths were not limited.

Sir Edward Sassoon.

3649. Are you quite convinced in your mind that the regulations that have been drawn up are adequate for the purpose of preventing interference with the service, as at present constituted?—I am quite convinced that the regulations, as laid down in the Convention, will not interfere with naval working.

3650. And that they are capable of effective enforcement?—Yes.

3651. Because otherwise the regulations would practically remain a dead letter. Now you have said that it would be a great advantage to our Mercantile Marine to have some sort of universal service, so that our ships may be able to intercommunicate with other ships having apparatus other than the Marconi apparatus?—Yes.

3652. I understand that the owners and proprietors of shipping companies are not of the same mind at all. Some of them have given evidence before us, in which they say that a universal service according to the Convention would be beneficial, while others like the Cunard and the Allan Company distinctly take the opposite view.

Mr. Sydney Buxton.

The Allan Company have withdrawn their "view."

Sir Edward Sassoon.

3653. Then let us take the Cunard, a very

Sir Edward Sassoon—continued.

important company. Can you show anything like a divergence of view on the part of shipowners—I do not know the special requirements of different companies, but I imagine that shipowners would take into consideration the points that I have mentioned, that is to say it would be to my mind a distinct question to be thought out before one purchased a set of wireless telegraphy instruments, the point as to their communicating with naval ships in time of war, and we can only make allowances for the general organisation of which we know the definite points, wave lengths and the methods of signalling and so on.

3654. So that on the whole you think that it would be distinctly to the advantage of Great Britain and her Mercantile Marine that she should ratify the Convention?—Most distinctly so, from the naval point of view most decidedly, and from the general point of view of British interests.

3655. And especially for the Navy?—Distinctly for the Navy.

Mr. Sydney Buxton.

3656. I only want to make one point, and for that purpose I will ask you one question. I understand from your evidence that originally you were of opinion that it would be almost impossible (or impossible) by the Convention to obtain sufficient regulations and securities for their enforcement—is that your position?—My principles have never changed; my principles have always been that it is necessary to have a general communication between ships and shore stations under a fixed organisation.

3657. You mean intercommunication?—Yes; the methods of applying this have changed. My original idea was that it would be a benefit to Great Britain to keep the organisation of wireless telegraphy in her own hands, because the organisation, to my mind, would have been slightly simplified; that is to say, to be able to carry out the organisation under one Government would be easier than having a number of Governments taking part. But then there is the other side to consider, which is: how would a British monopoly have affected wireless telegraphy improvements? The reply to that question is, I consider, that we should have lost the benefits of foreign scientists bringing out improvements. Accordingly the two methods which allow for a fixed organisation and general intercommunication appear to me to be the Convention system and the British monopoly system; these I consider are practically equal to one another; the one has a slight disadvantage because the organisation may be more difficult to carry out, and the other has the disadvantage of the monopoly system.

3658. From the naval and mercantile point of view I was not quite clear. Do you mean this—that it would be an advantage to the Admiralty that the Mercantile Marine that start wireless stations on their ships should be able to intercommunicate because by that means the Admiralty would be able to communicate with a larger number of ships carrying various.

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various forms of apparatus: Is that the point?—Yes, the number of ships and our look-outs. Our communication would be largely increased if we could utilise and make allowance for the commercial organisation in our naval organisation, which can only be done, to my mind, by having intercommunication under one organisation.

3659. If it is confined, do you mean, merely to non-intercommunicating stations—that is to say, to Marconi stations? The Admiralty would not be able to communicate with a large number of the mercantile ships carrying other systems:

Mr. Sydney Buxton—continued.

Is that it?—Yes; we cannot make allowances for various organisations.

3660. But I understand that whatever may have been your doubts in the early stage, in regard to the question of whether a monopoly or not would be to the advantage of the country, you are fully satisfied now that the Convention would be an advantage to this country, both from the naval point of view and the commercial point of view?—Certainly; it is the only practical way of carrying out intercommunication under general organisation that I can see.

Captain BETHELL, R.N., called in; and Examined.

Chairman.

3661. You are an officer of the Royal Navy and in command of His Majesty's ship "Hindustan"?—I am.

3662. Will you be good enough to tell the Committee what your connection with wireless telegraphy has been in the Navy of recent years?—From April, 1903, to the end of December, 1906, one of my duties at the Admiralty was in conjunction with the Director of Naval Intelligence to advise the Board with regard to the policy to be carried out by the Admiralty. In addition to that I was practically the head of wireless telegraphy in the Service; that is to say, I was responsible for the equipment of all the ships, the introduction of any improvements, the carrying out of experiments, not personally attending them, but drawing up results from them. I may say that I had charge of the whole of the wireless telegraphy in the Service.

3663. You were one of the Admiralty delegates who went to the Berlin Conference in 1906, were you not?—I was—yes.

3663*. You have read the evidence of your colleague, Colonel Daniell, have you not?—Yes, and I agree with it.

3664. Do you agree with that or not?—Perfectly.

3665. And you have read Mr. Cuthbert Hall's evidence given before this Committee?—Yes, I have.

3666. Will you give your view to the Committee as regards the questions that have been put to these witnesses, and in connection with the answers given by Mr. Hall as regards the allegation that a violent change of policy took place at the Admiralty in connection with intercommunication?—I think my best way to answer that question would be to give a slight history of what really has happened.

3667. That will be the simplest way of dealing with it, probably?—I may tell you, then, that I joined the Admiralty in 1903. Almost before I had got the threads of what was going on in the Department with regard to wireless telegraphy the question of the attitude of the delegates at the 1903 Conference was brought up, and I was asked to advise Lord Selborne with regard to the policy that the Admiralty should pursue at that Conference.

0.6.

Chairman—continued.

I cannot say that I was against general intercommunication at that time because I had hardly studied the question, but I was not prepared to undertake the responsibility of advising such a policy without having more time to study it than really was available, and the advice that I gave was that I thought first of all that there was no possible power in the hands of the British Government to enforce anything that was decided at the Conference with regard to intercommunication; there was no legislation, and that the state of the naval instruments at that time was in a very rough and ready sort of way. We had no system of tuning, we had got only a few ships equipped; the results that they got were very indifferent and very uncertain. I did not consider that we were ready for anything of that sort, and that the attitude which the delegates had better take was one of reserve—not to commit themselves particularly in any way, and certainly not to give the Conference any idea that we were going to accept the policy of intercommunication. That was more or less the view that was taken by the Admiralty until the question cropped up again of a future Conference. It became then a question that we must decide something or other. There was going to be a Conference, we thought, early in 1904, and it was absolutely necessary that the Admiralty should decide something. By that time I had considered the question a good deal, and had made up my mind that general intercommunication was not a good thing; I was dead against it—I may say I am dead against it at the present moment. What I call "general intercommunication" is general compulsory intercommunication with no exceptions at all. It is a policy that I did not like anyhow; so I advised them that we should stick, more or less, to what we had done before, only that we should go wholly for rejecting general intercommunication. Then it had to be considered from other points of view. There were other departments concerned, of course, and there was this question to be faced: that, seeing the Conference in 1903 had been a meeting of several nations—certainly not all, but a good many nations—who were interested in wireless telegraphy, and that with the exception of one—which was

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was Italy—everybody had been unanimous that there should be this general intercommunication, we had to consider then whether any English Government would be strong enough to stand out against this expressed desire.

3668. You mean by "general intercommunication" without exceptions or exemptions?—Yes—the question of exemption had not cropped up at all then; nobody dreads of exemption—whether the Admiralty recommended that it should be done or whether the Government would go for it. All the countries were asking us (we are the principal country) to join in with them in an arrangement which after all, when you come to look at it, is a perfectly reasonable thing to ask for. At that time no foreign nation was able to communicate with our shores; they were asking us to allow them to communicate with our shores; the matter was discussed very fully; it culminated in a meeting which was held at the Admiralty (on, I think, the 24th February, 1904) at which I was present, and at which, after the thing was debated out (there were three departments present who were interested) I was asked: Could I lay down anything that the delegates could go on, that is to say, were there any conditions under which we could accept intercommunication.

Mr. Adkins.

3669. What was the date of that Conference?—The 24th February, I think; I cannot be certain as to the date, but the 24th February is rather impressed in my mind.

Chairman.

3670. 1906, do you mean?—No; February, 1904. I drew up then certain conditions which I thought we might accept, one of which was that, provided that in the opinion of the Admiralty suitable regulations could be drawn up together with provisions for their enforcement (I was rather strong on that point—of course regulations are of no use unless you can enforce them). I thought there would be no objections to the Admiralty agreeing to this general intercommunication. There was nothing more done. That was the policy laid down. That starts, you may say, the Admiralty policy, and from that day until just before the delegates went to Berlin it was always the intention of the Admiralty to pursue that policy. I may say that every paper on wireless telegraphy passed through my hands, and I had always that in view when I was dealing with any question which was likely to be affected in any way, that the Conference was going to assemble and that the British Government I understood—anyhow the Admiralty had said they would accept this general intercommunication provided they had certain conditions fulfilled. So I can say with absolute certainty that there is no question whatever that that policy was the Admiralty policy up to within a short time before we joined the Berlin Conference. Now in June, July, and August the delegates that were going out—

Mr. Adkins.

3671. Last year, do you mean?—In 1906—yes—they had meetings at the General Post Office to consider the draft of the German Convention. If I may say so that draft was absolutely absurd; we could not possibly accept that—that had always been admitted, and we set to work to see how we could remodel it to enable us to sign a Convention based on the principle of general compulsory intercommunication with no exception whatever. We went through the Convention, and a small sub-Committee sat to consider the regulations. I did not sit on that Committee purposely. I may tell you that all this time I had never changed my views. I was still *against*, although it was the Admiralty policy. I did not like it; of course, I was bound to carry it out, but, as I say, I did not like it. When the Committee discussed the sub-Committee's proposals I was not satisfied with what they were going to recommend with regard to regulation; in fact, they had had great difficulty, and I brought up before the delegates then (and I state now) that I did not like this question of general intercommunication, and I thought we must modify it very considerably. I proposed first of all that we should go back to the *status quo ante* of February, 1904. Well, that was discussed for some time. I did not place any very great stress on that because I proposed an alternative: Supposing the delegates did not agree, I proposed an alternative. That was discussed a great deal; it was discussed not only amongst the delegates, but it was discussed between the Admiralty and the G.P.O. I may say that the result of the meeting on February 24th, 1904, had been that some foreign countries had been communicated with and had been told the attitude we were going to adopt at the Conference. We agreed that we would only have a modification of it. There was a little discussion about whether the modification should be one way or whether it should be another way. It was eventually agreed that we should accept the principle of general intercommunication, but that we should insist upon being able to exempt any stations that we liked.

Mr. Lambert.

3672. What was the date of this?—This was in August, 1906. I may say that I placed great stress on that exemption clause, because I had, I may say, perhaps, a certain amount of sympathy for the Marconi Company. I had watched their proceedings for some years—I had had a great many dealings with them—I had a great admiration, not, perhaps, for the way they conducted their business, but for the plucky way in which they had fought everything that in any way tended to reduce their monopoly; and I thought they had done a great deal for wireless telegraphy; they had built up an organisation which undoubtedly, in any time of emergency, would be of great benefit to the Admiralty; and I did not wish to do anything which would tend in any way to jeopardise that organisation, even if it were for only a short time. I think if you introduce general intercommunication without any exemptions whatever, first of all you must have a certain amount of dislocation; I think it will all

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Mr. Lambert—continued.

all come right in a short time, but there will be a transition stage in which there will be a certain amount of dislocation. I did not want to see that—the Marconi Company themselves feared it very much; no doubt they had other reasons, but that was one of the reasons they had always impressed upon me, and it was a reason that I saw; therefore I did not want them to be forced to intercommunicate with their very important stations, and also stations which are important to us in war time, until they felt that they themselves could come into this agreement without any fear of their organisation being disturbed. I may say that my objections to this general intercommunication were, not that I thought it was impracticable in any way, because I believe it is perfectly practicable; I believe the difficulties are very much exaggerated, what has been said about the disorganisation and the interference, and confusion, and all that sort of thing that is going to happen.

Chairman.

3673. Physical difficulties of intercommunicating between different systems, you mean?—Yes, I do not think there is any difficulty whatever. There will be a certain amount of disorganisation at the first; there will be a little bit of confusion; but it is a thing that will settle itself very easily and very quickly. I do not think that the Admiralty position would be in any way jeopardised except so far that for a short time it might throw out of working order a few important stations of the Marconi Company.

3674. What were your objections? You said they were not physical objections, and you do not consider them impracticable?—My principal objection was that I did not want these important stations of the Marconi Company to be thrown out of gear, for a short time even. I had always looked on these stations as a ready supply for me to draw on in case of a sudden war; they are in an efficient state, and I had always more or less looked on them as a reserve.

Mr. Sydney Buxton.

3675. That is why you originally insisted on having the power to exempt stations, is it not?—That was the sole reason.

Chairman.

3676. And with the power to exempt obtained, you withdrew your objection to intercommunication?—Entirely; I am very much in favour of it—with this exception, that is—

3677. In fact you look at it as inevitable in the future?—I do not think there is the slightest doubt about it; I have known that for a long time; it is the natural thing that must happen.

Mr. Sydney Buxton.

3678. Then what it came to is this, I understand.

Mr. Sydney Buxton—continued.

stand, that the Admiralty had agreed (subject to certain conditions and securities for the regulations being carried out) to the general principle of intercommunication; that since then, at your instigation and with the assent of the Admiralty and the other delegates, you have simply added a further condition of security to that, namely, the power of exemption?—Quite so.

3679. And with those safeguards you have considered the position of the Admiralty secure?—Perfectly—I am perfectly satisfied with that situation.

Chairman.

3680. You are quite satisfied now?—Quite.

3681. You do not see any objection now that you have obtained the exemptions and exceptions?—None whatever.

3682. From the Admiralty point of view?—That is so. I may say that whilst we were at Berlin I wrote constantly to the Admiralty urging that we should be allowed to sign the whole Convention—that I was convinced that it was not only for the good of the country but for the good of the Navy.

3683. So that your alleged opposition really resolves itself into, or revolves round, the question of exemption?—Quite so.

3684. The moment that exemption was introduced you were in favour of intercommunication?—The moment exemption was agreed to it removed all my objections, provided we got the stipulations which we laid down at the Conference—which we have done.

3685. And all these points which you discussed and which you looked upon as important were subsequently introduced into the Convention?—Entirely.

3686. In the amendments which were put into the Convention?—Yes, quite satisfactorily.

Mr. Sydney Buxton.

3687. Practically, as I understand it, when you went to the Berlin Conference with the other delegates you were instructed, and you intended only to agree to the principle of intercommunication if you obtained the regulations that the Admiralty thought essential for the prevention of confusion and interference—if you obtained security that those regulations would be carried out, and if you obtained the power to exempt at the will of the Government such stations as they desired?—Yes, that is so.

3688. I want to draw your attention to a speech that you made at the second sitting of the Conference, to which some reference has been made in the evidence in which you laid down this proposition. I should be glad if you could tell us under what conditions that speech was made, and what you had in your mind in making it—it is not a speech, but a “declaration”?—Yes. Well, in the first place, Sir, I may say that I knew that there was a feeling in the Conference—very much in some nations—of suspicion against the British delegates. They had an idea that we had come there and were going to criticise the whole thing—cut it up, make it absolutely

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lutely impossible, and then chuck it on one side and say that we should have nothing to do with it. I wanted to remove that suspicion first of all; I did not think, unless we could make the Conference think we were going to act honestly, that we should get a proper hearing or consideration for the—rather, I think—stringent regulations which we were going to impose. I also wanted to make the Conference thoroughly understand that it was not of such very great importance to England that we should have this intercommunication, because we had an organisation of our own and they had not got one. I thought that if they could be got to see that they would treat our regulations rather more leniently, that they would be more inclined to listen, and that we should be more likely to get our points through than if nothing had been said about it at all; and I also wanted, of course, to make a point about exempted stations—I laid stress upon that. I had to argue the case to show why an exempted station was necessary, and I thought that was the best way to put it to the Conference.

3689. The gist of it being that you desired to explain to the Conference, I understand, that it would be necessary for the British delegates, if they assented to the principle of intercommunication, that these regulations to which I have referred with the power of exemption should be enforced?—Yes; of course you know, Sir, when *this* statement was made there was an idea of passing that Article III. straight away through. We wanted to postpone it until after the regulations had been settled.

3690. It was on that Article III. that you spoke, was it not?—It was on Article III., and it was to convince the Conference that Article III. must be postponed until after the regulations had been made out, principally, that I stated what I did.

3691. That is to say you could not assent to Article III. unless these various points which were essential from the Admiralty point of view were agreed to?—Exactly. It was impossible for us to say whether we could agree to Article III. until we knew what regulations were going to be adopted by the Conference to carry out the system.

3692. Did you hear Commander Payne's evidence just now?—Yes.

3693. Do you agree with what he said in his evidence as to the advantage of the Convention? The question he was asked was this: "Do you consider that if Great Britain ratified the Convention it would be beneficial or otherwise to naval wireless telegraphy interests," and he gave various reasons for holding the view that it would be beneficial. Do you agree with that view?—Entirely; I can supplement these views I think. I think it is beneficial from very many points of view.

3694. Then on the whole, whatever may have been the differences of opinion at the earlier stage, you are satisfied that the Convention will be to the Naval advantage of the country?—Yes, Sir; but I should like to say that I do not think there ever was a difference of opinion.

Mr. Sydney Buxton—continued.

3695. I do not mean a difference of opinion between the delegates?—No, none before or at any time.

3696. Well, a "difference of opinion" perhaps was not what I meant—some development of opinion?—There was a development of opinion—yes.

Mr. Lambert.

3697. I understand you to say that in February, 1904, you did not view the principle of intercommunication with any favour?—No. What I mean is I did not like general intercommunication with no exceptions whatever—that is to say, that everybody is to be compelled to do it.

3698. I understand then it was decided by the Admiralty in 1904, when Lord Selborne was First Lord, that such intercommunication should be adopted, provided that suitable regulations were drawn up with adequate provisions for their enforcement. Is that the attitude that was taken up?—Yes.

3699. Has there been any change of policy at the Board of Admiralty on this matter of wireless communication?—None whatever, with regard to that, unless you call a "change of policy" bringing in exempted stations.

3700. But you had that in view, I understand, in 1904?—Not the exempted stations—no; that was an afterthought; that never cropped up till 1906. The policy of the Admiralty, and the policy I was bound to carry out, was that we were going to agree to compulsory intercommunication with no exceptions whatever; up to August 1906 there never was any change or any thought of change.

3701. So that you have got your position now doubly secure?—Exactly.

3702. You have got your suitable regulations, your provisions for enforcement, and the exempted stations—which makes you doubly secure?—We got an extra guarantee.

3703. Now, you having had to do with this question of wireless telegraphy from its commencement, is there anything in your opinion in the ratification of this Convention which will be detrimental to naval interests?—No; I go further than that and I say it will be beneficial.

3704. You are not now expressing any *ordered* opinion of the Board of Admiralty; you are expressing your own opinion founded upon your own experience?—I consider that I am entirely free from the Admiralty now, and I am expressing my own opinion.

3705. We are quite agreed; but I wanted to clear away any misconception that you are not expressing your own opinion as an expert in wireless naval telegraphy?—These are entirely my opinions; and, as I stated before, I wrote very strongly whilst at the Conference in private letters which I wrote to Lord Tweedmouth that this policy was a good one, and that we should adopt it—that we should be allowed to sign the Convention. If you remember, there was a very great Press campaign started, and, naturally, letters were written out to me to know what the meaning of all this was, and I wrote very strongly indeed about it, saying that I considered that we had a great deal to gain and nothing to lose.

3706. In

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[Continued.]

Mr. Lambert—continued.

3706. In fact, the present Board of Admiralty gave the naval delegates considerable powers?—I think it is not going too far to say that they gave us an absolutely free hand, or rather that they gave me an absolutely free hand.

3707. So that there is no question of the Board of Admiralty overruling the opinion of their technical adviser?—Not a bit.

Mr. Arthur Lee.

3708. I understand that you were personally opposed to general intercommunication without exemption right up to the time of the Conference—that, in fact, you are still—and that that has been your attitude throughout?—Yes.

3709. It has been suggested to us in evidence—I think it was in Mr. Cuthbert Hall's evidence, Question 1584—that the Conference to which you refer took place in August last, and that there were some differences of opinion between the Admiralty delegates and the Post Office delegates?—Does this refer to 1906?

3710. Yes, I think so. Have you got the evidence before you?—Yes, I have, Sir.

3711. Of course I do not want to go into the details of anything that took place at that Conference, but was the attitude of the Post Office at that time that intercommunication was desirable whether you could get exemption or not, that intercommunication should be agreed to whether you could get exemption or not?—There was never any intention of having any exemption.

3712. Yes, but you were opposed to that?—That was only my personal feeling. The policy I had to carry out was the policy which was decided by Lord Selborne; that is to say, provided we got these conditions that were laid down we were to agree to general intercommunication without any exceptions whatever. We should have gone to Berlin, and we should have done that if I had not raised the question with the delegates, because I was not satisfied with the state of affairs. Well, I did not think the work we had done as delegates was satisfactory, that we could really go to the Conference with those conditions only.

3713. I quite understand that you were bound in your official position by the general policy of the Board of Admiralty, but you, yourself, in your own private capacity were opposed to intercommunication unless the exemptions could be obtained at the Conference?—Yes; I was.

3714. And the question I asked you was whether this attitude was taken up at the time of this preliminary consultation in August. I mean I am trying to get at the ground of this statement made by the witness—whether it was that there was a difference of opinion amongst the delegates—I will put it in that way—by which certain of them would have been willing to agree to intercommunication without any restriction?—No; I do not think you can say there was a difference of opinion on that point at all. I think the delegates were unanimous, almost as soon as I put it, although, I may say, as I said before, discussions took place on that as to whether we should go back to the old position; but I think (as far as

Mr. Arthur Lee—continued.

I remember, of course), that the General Post Office (who were the principal delegation beside the Admiralty) at once agreed to the proposing of the exemptions.

3715. So that your view that you had held all along eventually prevailed—that you must have exempted stations?—Yes.

Mr. Sydney Burton.

3716. May I just ask one question here? So far as you are aware, you having attended these Conferences, did the Post Office delegates at any time, from the moment the proposal for exemption was proposed, oppose it?—No, never; they adopted it at once. There was a little difference of opinion about how the exemption should be carried out, but they (if I may say so; it is not a term I like) gave in at once. There was no question of anybody "giving in" really.

3717. Was it a question of "giving in," was there any opposition on their part whatsoever?—None whatever.

3718. Did not they agree to it as a good suggestion?—Entirely.

Mr. Arthur Lee.

3719. The suggestion came from Captain Bethell of the Admiralty—the proposition in the form in which it came before the Inter-Departmental Conference was that there should be intercommunication with or without exception?—Yes. Of course, that had always been the policy. We were quite prepared to go to Berlin on those terms until we had these preliminary discussions; then we saw the difficulties.

3720. Could you say what you had in your mind with regard to the extent to which the exemption should be carried out? In your speech or statement before the Congress you said, "It does not then appear desirable that the Governments should bind themselves to restrictions which are in fact superfluous, since satisfaction can be given to the requirements of general intercommunication by the provision of stations devoted to this object." That rather suggests to me that you proposed to satisfy the international demand for intercommunication by altering the minimum number of stations you proposed to exempt. Did you then contemplate that the majority of stations in this country would be exempted stations?—Oh, no, not by any means. I think only a few of the important stations where the traffic is congested.

3721. I confess I do not quite understand that paragraph to which I have just referred in your remarks as to what was in your mind at the time. Perhaps you would explain it?—Well, I had to make out the case, you see, for the exemption of the stations. I was putting the case, as I thought, so that the Conference would rather adopt my view.

3722. It seems as if you were putting forward an argument there that it was really superfluous to have other systems when the whole thing, as far as they are concerned, could be satisfied by putting up a few communicating stations?—No, I never had that in my mind at all. The word-

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Mr. Arthur Lee—continued.

ing of it, of course, may not be very good. You will remember one had to put it into English and then to translate it into French; then it had to be translated back again into English, and I am not quite sure that the translation is exactly as it ought to be.

Mr. Lambert.

3723. You would rather make the speech over again here possibly?—Well, if I might make it in English and not in French I would.

Mr. Arthur Lee.

3724. With regard to this question upon which you, I understand, lay great stress, of the enforcement of the regulations, do you consider that the provisions for enforcement are likely to be effective in the sense not only of being ultimately effective, but being effective within a sufficiently short space of time to really bring the operators who are not confined to regulations to book?—I think so—yes. Of course you must give all Governments credit for wanting to work the Convention under the conditions under which it has been framed; then you must remember that we have always got a clause in the Convention which we can bring into effect—if we find we do not get redress we can refuse to communicate with any ship that does not obey the regulations. Of course international control—I mean to say redress and all that sort of thing—may be rather more lengthy than it would be if the whole thing was under the management of one person, but I do not see really that there should be much difficulty about it.

3725. But do not you think that the delay which is inseparable from communicating with Governments through diplomatic channels and so forth would make it very difficult to deal with breaches of the regulations?—Well, of course the offender will not be visited with his punishment quite so soon as he would be otherwise; but he would get his punishment eventually, and I fancy that that would be a deterrent to most people.

3726. There was a point which came in Mr. Cuthbert Hall's evidence (Question 1567) that I should like to ask you about. He there suggested that as a result of what he gathered in conversation with you as to your views—as a result of that—his company refrained from accepting certain offers that were made by international companies for the sale of shares and so forth, and rather gave us to understand that the Marconi Company (of course, unintentionally) misled as to the attitude that the Admiralty were going to take up, and that this affected their decision in a commercial matter and injured their business. Do you consider that the Marconi Company have any grievance under that head?—No, I do not think so. I was very sorry indeed to see that, and to think that the Marconi Company should have inferred anything from what I stated that should have led them to a conclusion of that sort, because I consider that Mr. Hall entirely misunderstood what I intended to convey to him, and I may say that I had many interviews with

Mr. Arthur Lee—continued.

him—he was continually coming to see me, I may say almost every day, trying to find out what the instructions were going to be that were going to be given to the delegates. Of course, that was a thing my mouth was closed on. I said to him continually, "It is no good your asking me that question because my mouth is sealed." He threatened all sorts of things—a Press campaign to air all his grievances in the papers, to write to the Foreign Office and say that he was not going to carry out his agreements—and things of that sort; then he came to me on this. I did not look upon it as a very serious matter, but rather as another attempt to work upon my feelings, and I said: I may tell you this much, I cannot tell you what our instructions will be, but I can tell you that the Admiralty are not going to agree to general intercommunication. He said to me: I think that may be your opinion. And I said: No, it is not my opinion only, it is the opinion of the Admiralty; they are not going to accept the German Convention as it stands; they are going to modify it very much; they are not going to assent to general intercommunication. We never discussed between us the question of exempted stations; it had always been "the whole hog" or none.

Mr. Gwynn.

3727. You say it was "never discussed between us"; I understand you to mean between you and Mr. Hall?—No, never.

3728. Or do you mean between you and the delegates?—Between me and Mr. Hall. We discussed this question very often.

Mr. Arthur Lee.

3729. When you said that the Admiralty were not going to agree to intercommunication, of course you mean "without exceptions"?—I meant we were not going to agree to compulsory intercommunication with everybody without exception.

3730. And you think that a possible misunderstanding may have arisen in that way; in fact, you had not discussed the question of exemption, and it might have been supposed that the Admiralty was going to refuse to consider the question of intercommunication at all?—Yes, that is what I would like to think; I do not like to think that anybody ever wilfully misrepresents one, but I think there is very small reason to misunderstand in that case, because, as I say, we never discussed the question from any other point of view.

3731. And you do not think then that the Marconi Company have any grievance under that head—I do not mean a grievance for which you could be made responsible, in any event?—You mean a moral responsibility?

3732. Yes?—I do not think so.

Mr. Lambert.

3733. Might one not say that he had no business coming round to the Admiralty to endeavour

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Mr. Lambert—continued.

endeavour to worry out your secret any way?—Exactly, Sir. It is rather a pity that Mr. Cuthbert Hall should make a statement of this sort, because, to begin with, our conversations were entirely private—they were confidential—and I had always told Mr. Cuthbert Hall: These are not the views of the Admiralty, but my private views. They were private conversations that really ought to be kept out of an inquiry of this sort.

Mr. Arthur Lee.

3734. I quite agree to that, but what we have to consider is that certain statements have been made to us in evidence, and we naturally want to hear the other side of the case?—I am delighted to be questioned upon them, Sir.

3735. That was really the chief point of substance that I wished to ask you about. Generally speaking, you are now quite satisfied in your mind that the regulations which have been made are capable of enforcement, and that they will meet all the objections you originally felt as a private individual to the principle of intercommunication?—Quite. I may say that I always had very great doubts that we should ever carry those regulations. No one was ever more surprised than I was when we took them through almost without discussion. I framed those regulations myself, with the advice of my experts, and we thought we had made them very stringent indeed; they were practically carried; they were altered, I think, as far as I remember now, in the case of every ship station from 15 words a minute to 12 for transmission and reception; from 25 words a minute on the part of the operator to 20, things not of very much importance; they reduced the large wave length from 1,800 metres to 1,600 metres, and I was prepared to take 1,500, and very nearly proposed 1,500, only I thought I would try and get a bit more; and therefore I proposed 1,800.

Chairman.

3736. So that you really asked for more than you anticipated you would get?—Quite.

3737. And you subsequently got it?—And we subsequently got it.

Sir Edward Sassoon.

3738. I think you told us you were unalterably opposed to any principle of general intercommunication until the idea of exempted stations suggested itself?—Yes; that is to say, I did not want the general intercommunication without any exceptions.

3739. May I ask to whom the idea of the exempted stations occurred? Was it your own idea or the result of deliberations?—It was the result of deliberations. I may say that I proposed an alternative, but I think I should prefer not to go into the discussions which took place between the delegates.

3740. Quite. Then you told us that before deciding to accept the invitation to go to the Conference the Admiralty had understood that

Sir Edward Sassoon—continued.

all the Powers, with the exception of Great Britain, were unanimously in favour of compulsory intercommunication?—No, not just before we went to the Conference.

3741. Not before you went to the Conference?—No. Before we went to the Conference I had been told that there were several Powers that were not going to agree. The authority was not very good as it turned out, but I was led to believe that there were several Powers.

3742. Who would not agree?—Who were not going to agree to general intercommunication. When we arrived there we found it was not correct.

3743. So that when you went to the Conference you had quite made up your mind that if you got those stipulations—the exceptions and reserved stations—you would recommend the ratification of the Convention?—Yes; I may say that I was quite prepared, if I had found at the Conference that there was a very decided view amongst other nations that they would not have it, to postpone the thing.

Mr. Arthur Lee.

3744. That they would not have what?—If I had found when we arrived at the Conference that there were several nations—as I had been led to believe before I went there—who were dead against intercommunication I should have advised then that our policy should be one of inaction and postponed the thing—not come to an agreement; but when we arrived there we found that everybody was not only in favour of it but were thirsting for it.

Sir Edward Sassoon.

3745. “Thirsting” for exempted stations?—No, they did not want the exempted stations. The “exempted station” was a thing we gained entirely, because we pressed for it rather hard; they were thirsting for general intercommunication—making it compulsory to everybody. There was not a nation there, except the Italians; and I believe the Italians if they had not been tied up in a knot would have been very glad to have it.

3746. Can you tell us the date when the Admiralty signed the contract with the Marconi Company for accepting no intercommunication?—I think it was July, 1903, as far as my memory goes.

3747. And it was in February, 1904, that the idea of exempted stations occurred to you?—No.

3748. Not then?—No, not until 1906—August, 1906.

3749. You mention that date as marking an epoch?—That marked an epoch at the Admiralty when we decided that we would adopt the principle of general intercommunication without any exceptions whatever.

3750. To which you yourself were opposed?—As a private individual.

3751. In February, 1904; and you now consider the regulations are amply sufficient and capable

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Sir Edward Sassoon—continued.

capable of enforcement to make the Convention work smoothly?—I am perfectly satisfied of it myself.

3752. Let me put to you a case of a French ship communicating with The Lizard coast station and a German ship installed with an American service endeavouring also to communicate with The Lizard, there would be interference, would there not?—There should not be.

3753. There should not be, you say?—You understand the ship makes her call to a coast station, she then communicates certain things (I forget now what they are), so that the coast station has sufficient information to enable the coast station to know how long she will be within the region of communication. Assume that the French ship will be within the region of communication for eight hours, a German ship comes up and makes the call practically at the same time, and she is going to be three hours within the region of communication, the coast station then says to the French ship, "Very well, you wait." She communicates to the German ship; now you go on. There should be no confusion whatever.

3754. There should be no confusion whatever, unless it is done intentionally?—Unless it is done intentionally; unless these regulations are not carried out.

3755. Let us assume such a case: what would be the mode of proceeding in order to bring the delinquent ship to book, what would be the first step?—The first step would be a complaint by The Lizard Station, I suppose (The Lizard Station is a Marconi Station), to the Marconi Company; the Marconi Company would forward their complaint to the Government.

3756. The British Government?—Yes, I suppose so; I do not know how it will be arranged; perhaps the Board of Trade may take this question, then they will, I suppose, go to the Foreign Office, the Foreign Office will communicate, I suppose, with the Ambassador of the country concerned in London. It will go through the ordinary diplomatic channels, and a reply will come back in due course.

3757. We are going a little bit too fast, Captain Bethell; we have now got to the German Government?—Yes.

3758. The German Government, after all, is circumlocutory in taking its steps. Can you tell us what the next step will be?—The German Government will go through their channels until they arrive at the operator. I suppose the matter will end at the shipping company.

3759. The German shipping company?—The German shipping company, who will then be ordered to deal with the operator; then it depends on his defence what his punishment is to be; he may have his licence withdrawn.

3760. It is quite conceivable that the German shipping company would say: "This being an American ship we have had to refer to headquarters in America?—Possibly.

3761. So that it will take possibly three or four months before the source of the error is located and acknowledged?—It is possible—yes.

Mr. Sydney Buxton.

3762. Is it not true that under the Convention meanwhile, The Lizard—the British Station in the case you have mentioned—can refuse to receive messages from that ship pending these inquiries?—Entirely. That is our safeguard.

Sir Edward Sassoon.

3763. How would they know which was the offending ship?—They must know the ship.

3764. Which of them, whether the French ship or the German ship?—They have got the code number of the ship; they must know which ship it is.

3765. It could always be identified you say?—Undoubtedly.

3766. Take another case, the case of a German and an American ship in the Channel communicating with each other, if the tuning of the apparatus on board those ships were different, would that not cause interference with a French ship communicating with either the French coast or the English coast?—I do not quite follow the question.

3767. Take the case of a French ship communicating with our coast?—A French ship with our coast—yes.

3768. A German ship and an American ship communicating with each other at the same time. Would there not be considerable disturbance to the reception of the message from the French ship at the British coast?—Not necessarily; it depends upon various things; it depends first of all upon whether they are both working with the same wave length; it is not a certainty that they would be, but they might be. You see the communication between ships must be carried on with 300-metre wave lengths. The French ship which is communicating with the English coast station might be communicating with a 600-metre wave length. In that case there would be no confusion whatever. If they were all on the same wave length, and the two ships communicating with one another were within the sphere of influence undoubtedly there would be confusion. Then there is a clause in the Convention which governs that—which says that ship to ship communication is to give way to ship to shore communication. That is one of the Articles at the end of the Convention. I forget the number of it.

3769. This is a case of ships of three different nationalities?—I do not see that the nationality matters a bit; they are all under the Convention.

3770. Who would signal?—The coast station would get into communication with the ships and say: "You are interfering with communication with a ship, and you must stop.

3771. Stop till after the message had been transmitted?—Yes.

3772. You think there would be no difficulty about it?—I do not think there would be any difficulty.

3773. Were you in favour of exempting one station for every communicating station?—Exempting one station?

3774. For every general communicating station?—You mean: am I in favour of putting up a station for every one that we exempt?

3775. Yes.

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Sir Edward Sassoon—continued.

3775. Yes, I will put it in this way: Suppose that on the coast of England there was an intercommunicating station, within what range would you recommend the establishment of an exempted station?—In which to put up a fresh station?

3776. Yes. Would you put up another anywhere near?—Oh, no; certainly not.

3777. You do not think it is necessary?—I do not want to put up any more stations without they are really necessary to carry out the service.

3778. So that there is no proportion between exempted and non-exempted stations?—No. If we exempt a station in one region we must provide a station which will serve that region. That station may be in existence or it may not: but if it is not, then you must put it there. But those are the only stations I want to add. I do not want to add any more stations on the coast.

3779. What is it that determines the range, or what you call the "region"? Take the east coast. Would the whole of the east coast come under that category?—"Region" is rather a loose term, and it was put in rather for this reason—so that we should not be absolutely tied. If we exempted the station at Brow Head, say, which is capable of communicating at 180 miles (I communicated with it myself three or four days ago at 180 miles, I think), I do not know that we should be bound to put up a station which communicates at 180 miles—that is to say, a station that goes to the same point that Brow Head communicates with, or even one that goes close to 180 miles. What it means is that a ship coming from that direction should have a station somewhere in the vicinity of the Brow Head Station that it can communicate with.

3780. I suppose, generally speaking, it is within the competence of each nation to exempt or non-exempt as many stations as it chooses?—Entirely.

3781. Then there are certain nations which refused to accept the principle of exemption, were there not—the United States, for example?—That is hardly the way to put it, I think; they refused to avail themselves of the clause.

3782. Of the privilege?—Of the privilege—yes.

3783. It is, nevertheless, true that they have accepted the principle of general intercommunication?—Yes.

3784. So that the only two nations with exempted stations in the British Channel are the French and the English?—Yes.

3785. It is only their ships that could communicate only with Marconi stations?—Why?

3786. Because the ships of those nations who have renounced the privilege of exempting stations will not be able to communicate with the present service of Marconi stations?—Yes they will, unless we exempt the whole of the Marconi stations.

3787. Take an American ship riding at anchor in the Channel—would that ship be able to communicate with our exempted stations?—With the exempted stations?

3788. Yes?—No; but then where a station 0.6.

Sir Edward Sassoon—continued.

was exempted there would be a station that could communicate in its place; that ship is not debarred from intercommunicating.

3789. The non-exempted station may be a long way off?—No, it would not be. Why should it be? It has got to serve the same region; it cannot be a long way off.

Mr. Arthur Lee.

3790. Might I just ask you a question upon another point: can you suggest *what object* these other countries had in view, seeing that the principle of exemption had been accepted by the Convention, in pledging themselves not to avail themselves of it?—I think it is a question rather of pleasing what they call "the man in the street." They all had bellowed very loudly for this "intercommunication," and everybody had clapped their hands and applauded them, and they did not like to go back on what they had said. I fancy that was the reason.

3791. That is to say, they deliberately excluded themselves from the benefits of a "most-favoured-nation clause"?—I think they did not like the clause, but they were bound to carry it because they did not want to leave England out of the Convention, and it was a sort of "Oh, all right; we do not want it, but we will take it rather than admit that we are beaten"—a sort of schoolboy conduct, I think.

3792. You do not think it is a part of a policy, or pledge, for a future Convention to force general intercommunication upon us?—I think not. I think, perhaps, it is possible that before the "future Convention" comes we shall want it; we shall see that we have been right, and that it has been the right thing to do.

3793. Do you not mean not that "we have been right," but that *they* have been right?—Yes; I mean *that* also, that they have been right, but I do not mean to say that we should see that we had been *wrong*, because we shall not have been wrong. We are getting all the advantage of intercommunication with none of its risks.

3794. That is why, I imagine, they were content to shut themselves out of this extra benefit?—Possibly.

Mr. Sydney Buxton.

3795. You mean, do you not, that by the time the next Convention comes the dislocation which might have occurred without the Convention may have passed away, and that then it may be unnecessary to exempt stations?—I think so. In our service we had a frightful lot of difficulty when we first started with wireless telegraphy, but it has settled down now. I can remember the time when one sent up a message to the wireless telegraphy office, and it would be a thousand to one whether it would ever reach its destination; now it is a million to one that it does. It is a question of practice.

Mr. Arthur Lee.

3796. Have you not an autocratic method of enforcing discipline in a fleet?—I do not think we use it where it is not wanted.

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Mr. Arthur Lee—continued.

3797. I mean that if one ship persisted in talking when it was ordered not to the Admiral would have something to say?—It is possible.

3798. And I suppose it would be very soon stopped?—I suppose it would; but in the case of a man 150 miles away it would be rather difficult to stop him if he meant to go on.

Sir Edward Sassoon.

3799. Do you consider that the spark system and the Poulsen system can be made intercommunicable, the spark system and the continuous wave movement system?—I agree with what Commander Payne said. I think the two systems will be capable of intercommunicating. Just as the heavily-damped wave and the medium-damped wave can now communicate, so I consider the medium-damped and the undamped wave will probably be made capable of communicating. Whether an absolutely undamped wave will ever be obtained or not I do not know.

Mr. Adkins.

3800. There is nothing in the Convention, is there, to prevent those nations which have declined to avail themselves of the privilege of exemption from changing their minds after due notice?—I do not think there is, I could not say offhand, but I do not think there is.

3801. Then with regard to the point that Sir Edward Sassoon put to you as to the opportunities or possibilities of confusion—take for instance the case of two ships communicating with one another, one or other of them being out of range of a shore station, would the possibility of confusion be such as would exist if this Convention were not signed and had not been brought about at all?—Yes, and I think it would be magnified very much.

3802. Then without going into great detail I think, may I take it that your view is that the Convention, whatever else it does, minimises the risk of confusion and interference in wireless telegraphy generally?—I think so.

3803. Now with regard to the progress and development of opinion at the Admiralty in this matter, I want to have it quite clearly in my mind. Up to the beginning of 1904 the Admiralty was strongly against intercommunication at all?—Only so far as they had expressed themselves in the previous Conference. I do not think there was really any very strong feeling at the Admiralty either one way or the other at that time.

3804. Then between February, 1904, and the beginning of 1906, the official view of the Admiralty was one in favour of intercommunication with suitable regulation and methods of enforcement, but your own view was that they would not be adequate, in your private judgment?—Yes. Of course, I may say that I always intended to make those regulations fairly stringent, and I never dreamed for a moment that we should ever pass them at the Conference.

3805. Precisely; I follow. But when the question of exempted stations came up, you then passed from being loyal to being enthusiastic, I take it?—Well, you may perhaps put it in that way.

Mr. Adkins—continued.

3806. I want to take one or two remarks of Mr. Cuthbert Hall's, in Questions 1579 and 1580. He was being examined by Mr. Lambert, who said, "That disposes of the idea that the Admiralty had not it in their minds in 1904—that the principle of intercommunication might be beneficial to them." "I think not," he answered. Then Mr. Lambert said, "I am thinking of what was put into the agreement." Then Mr. Cuthbert Hall replies "the Post Office were always in favour of this, but the way in which it was put to me was that the Post Office were too much for the Admiralty. (Q.) Who put it like that?—Captain Bethell. I was reproached for giving up the whole situation by entering into the Post Office contract." Do you demur to these suggestions?—I do very much.

3807. Do you care to develop that phrase "demur"?—Yes. On that question with regard to his being "reproached" for having given up "the whole situation," I think that came about somewhat in this way: Mr. Cuthbert Hall, I think, on more than one occasion told me, or hinted to me, that he was not going to carry out the Marconi Post Office Agreement, and eventually one day he told me he was not going to.

3808. In what particular?—That if this Convention was passed he had no intention whatever of undertaking to carry it out—that he did not consider the Post Office had a right under their agreement—that that agreement was not worth the paper it was written on. I reproached him very much for entering into an agreement which he did not mean to carry out.

3809. This in his evidence takes the form of saying that he had been reproached by you for having given up the whole situation?—It is not so at all. As far as the Post Office agreement was concerned we were very much in favour of it, I spent six months of my time at the Admiralty in trying to bring the Post Office and the Marconi Company together—I was very much in favour of that agreement. As to ever reproaching him for having entered into it from the Admiralty point of view the thing is impossible; I could not have done it.

3810. You spent six months of valuable time in bringing the Marconi Company and the Post Office together, and that is the fact on which he based that statement "that the Post Office were too much for the Admiralty"?—It may be so.

Mr. Lambert.

3811. I did not refer to this in examination just now because I do not attribute very much importance to statements which cannot be ratified by documentary evidence, but do you accept this evidence of what was stated to be your views as being anything like accurate?—No. There is a vein of truth through it all; but beyond that I think it is misrepresentation all the way through; that is to say, that many conclusions have been drawn from our conversations; that is my view.

Mr. Adkins.

3812. I am much obliged to you, we have that in

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[Continued.]

Mr. Adkins—continued.

in the Minutes of Evidence. However regrettable it may be that private conversations should have been mentioned, I think it is only fair to you and those of us who may have probably to discuss this elsewhere, that we should ask you how far you agree with these suggestions and how far you demur to them. I think that is all I need ask you on that aspect of the question. You were one of the delegates at the Convention. In your opinion, supposing that England refused to ratify, would the other nations ratify with the exception of Italy which, as we know, is not in a position to be a free agent at present?—I have not the slightest doubt about it—not the shadow of a doubt.

3813. That you feel certain of?—I am absolutely certain of it.

3814. Then we have had various hypothetical conditions discussed here, such, for instance, as if England did not ratify and the other nations did, and it has been suggested that we should be placed at a great advantage because we should not be bound by the various conditions in the Convention and other nations would, and that therefore we could make use of any kind of wave lengths we chose for any purposes, while they would be hampered by the restrictions; that we should be in a position of persons to whom the Convention and conditions of morality did not apply, and they would be hampered by the conditions. I want to know what you say about that. Should we be in a position of great advantage if we did not ratify and other nations did?—Well, to begin with, I think if we do not ratify we shall place ourselves at a very great disadvantage; but with regard to what you say, you must look at it from this point of view: Do you think that other nations are going to tie themselves up into a knot by this Convention, and leave us to do just what we please? You must remember that this Convention was drawn up by Germany, and that we went there and cut the whole thing to pieces. We turned it inside out and upside down, and remodelled the whole thing, and *we* did it and nobody else. There is not a single thing *here* of any value that was not proposed by Great Britain; and do you think they are going to allow us to pull their whole thing to pieces and then let us go on and do as we like? I do not think so.

3815. In your judgment I understand you to say that there is no prospect of that condition of things, in which they are tied by regulations and in which we are free, remaining for any appreciable or for any permanent length of time?—No, I think they would very soon rectify it.

3816. One last question I will ask (as the other members of the Committee have asked you) about your final conclusion. I understand now that the Admiralty are not only agreed but are desirous that this Convention should be ratified in the form it now is?—Of course, I cannot speak for the Admiralty policy now; I do not belong to the Admiralty.

3817. Speaking for yourself what do you say?—I am certainly; I am very desirous indeed that it should be ratified and, as far as I understand, the Admiralty are also.

3818. Any ratification of the Treaty—the 0.6—11.

Mr. Adkins—continued.

Convention—in your judgment would bring about a better state of things than exists at present, what is the possible alternative?—At the present moment I think it would bring about a better state of things quite.

Mr. Gwynn.

3819. You said just now that since the Convention had been remodelled at the instance of Great Britain undoubtedly the other Powers would resent it if Great Britain at this point receded?—I think it is only natural.

3820. What do you contemplate their doing?—I think very soon they would remodel or make another Convention, and I think they would have very stringent clauses in it which would affect us. I think they would do all they could to bring us on to our knees.

3821. In the meanwhile, would they accept the Convention for themselves, or would they not?—I am not at all sure whether they would or not; it is a very difficult thing to say what other people are going to do. I know perfectly well what I should do under those circumstances.

3822. What would you do?—I should not rest till I had remodelled this thing in such a way that England would have to come down on her knees.

3823. Then you would not accept the Convention. In that case there would be the English interests all represented by the Marconi Company for the moment, and possibly other presumably hostile interests. Is not that the case that has existed up to the present time?—I do not quite gather the point of what you are putting to me.

3824. If I may I will put it in this way: your view is that if England refused at this point to ratify the Convention the other Powers would also tear up the Convention in order that they might be able to prepare to make a new Convention to injure England?—Yes.

3825. Up to the present time wireless telegraphy has been mainly the possession of England through the Marconi Company, has it not?—Yes, perhaps.

3826. And do not you think that that “possession” has been the subject of some international jealousy?—Oh, I think it has, undoubtedly.

3827. You would probably suggest that if the nations were so unanimous in 1903 they were unanimous because they desired to have a share of what Great Britain then had exclusively?—No; what they wanted was to get fair play for their own systems.

3828. To get fair play for their own systems?—In the future; and it is a very human thing, is it not?

3829. Yes, I admit the *humanity*, but the point I want to make is this: Before the Convention came into operation at all, was not there a natural collision of interests between the Marconi Company as representing British enterprise in this matter and the interests of all the people who wanted fair play for their systems?—Yes, undoubtedly.

3830. Nevertheless, is it not the case that under those circumstances the Marconi Company

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[Continued.]

Mr. Gwynn—continued.

Company still maintained its ascendancy?—Yes, but you have got to remember that all these Governments were looking forward to this Convention; they knew that this was coming. You have also got to remember this—that in 1903 this Convention was intended to be brought into force in 1904; it was postponed then for three months, and then for another three months, and then for another three months, and so on because the war was going on, but every body was expecting that this was coming into force; April, 1904, I think was the date that was proposed for it.

3831. You infer that if England did not ratify some much greater effort would be made to break down the Marconi Company's position than has been made before?—I think if the British Government, when the German Government sent the invitation to the second Conference, had said that they did not intend to agree to general intercommunication, or did not wish to attend the Conference, very great pressure would have been brought to bear. I think the mere fact of our going there and saying we should be prepared to discuss the question was perhaps sufficient to keep this within bounds.

3832. That is to say, you think the Marconi Company has retained its lead owing to a certain supineness in foreign competition, which supineness you attribute to their expectation of a Convention which would settle the whole matter?—To a certain extent; but I think the Marconi Company has maintained its position very much by the help of the Government Departments and of the Admiralty particularly.

3833. I mean as regards the question between Great Britain and foreign competitors?—What people have been talking of as a "wireless war"—is that what you mean.

3834. Yes. May I just ask one other question, to go back to a question that Sir Edward Sassoon asked you as to the procedure for enforcing a penalty on a person who broke the regulations. There was a further complication we did not deal with, I think: Would it not be difficult to find the operator?—No, I was going to say that that would be probably the easiest part of the whole thing. I do not for one moment say that it is not rather laborious; that is to say, it takes a little time to get to the operator, but that you will reach him eventually, I am absolutely certain.

3835. Absolutely certain, at the end of three or four months?—Unless he is dead, of course.

3836. The Postmaster-General suggested that there was a clause enabling you to "black-list" the ship?—Yes.

3837. Is not that clause put in rather as a thing to be appealed to in very extreme cases?—I think so. I think it would be politic not to make use of it too much.

3838. In the case Sir Edward Sassoon suggested it would be a little out of the question, would it not, to have recourse to such a clause simply because there was a conflict of testimony as to the distribution of blame?—Yes.

Mr. Sydney Buxton.

3839. You mean in the case of a first offender,

Mr. Sydney Buxton—continued.

do you not?—It is a sort of clause you do not bring into operation until a man has very flagrantly disobeyed you several times.

Chairman.

3840. In answer to Sir Edward Sassoon, and, I think, to Mr. Gwynn, you told the Committee that it would be a somewhat dilatory procedure to find out the offending ship and the man on the ship?—When you have got to work through diplomatic channels they are never very fast; everybody knows that.

3841. Have not you rather overstated the course of events that would take place in ordinary procedure? Would it not probably run on the lines of the Telegraph Convention, and that would be that the Department in control would communicate direct with the Department concerned in the foreign country?—I put it in the worst possible light. I merely gave that as an illustration just to show Sir Edward Sassoon that I had not overlooked this point; that I had considered it before, and although it is not perhaps an ideal procedure, it is the only way of doing it.

3842. And a fairly direct way of procedure?—And a fairly direct way of procedure, unless anybody deliberately wants to block you.

3843. If, for instance, the controlling department was the Admiralty, the Admiralty would communicate direct with the foreign Admiralty concerned, would they not?—Very likely. If this sort of thing happened means would very soon be found to deal with it.

Mr. Sydney Buxton.

3844. Is not the procedure exactly the same as the procedure that takes place at present under the Telegraph Convention, namely, that the one Post Office confers directly with another without using diplomatic means or delay?—So I believe; I do not know very much about it.

3845. Your reference to diplomatic procedure and delay was a little far fetched, was it not?—Undoubtedly it was; but I wanted to show that I was prepared to accept delay, even if it went to that extent.

Mr Adkins.

3846. There is one question I ought to have asked you, which I forgot, with reference to the evidence of Mr. Cuthbert Hall. In question 1594 he is asked by Mr. Lee "As you understand those views" (those are Captain Bethell's views "officially" placed "before the Conference") "do you take them to express a strong opinion against the principle of intercommunication," and his reply was: "Yes, I understand him to take the same view that I take—that you cannot enforce the regulation by intercommunication." I only want to get it from you exactly. Is that the view that you take, or are you prepared to say briefly what your view is?—I think it refers to a false idea that Mr. Cuthbert Hall had, of why, and how, regulations were to be enforced

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Mr. Adkins—continued.

enforced; but I always considered it was a difficult question.

3847. No doubt it is a difficult question?—I considered it so, because I never dreamed for one moment that we should carry everything that we were going to propose at the Conference; I

Mr. Adkins—continued.

thought that we would probably have to be content with something very much less.

3848. As this Convention now stands do you say that the regulations can be enforced by intercommunication?—I think they can, quite.

Mr. H. BABINGTON SMITH, C.B., C.S.I., recalled, and further Examined.

Chairman.

3849. I understand that you wish to offer some evidence with reference to some statements made by Mr. Cuthbert Hall upon the attitude of certain foreign delegates?—Yes; I thought it right as Mr. Cuthbert Hall had referred personally to statements made to him by Mr. Bordelongue, the first French delegate, to communicate to Mr. Bordelongue the extracts from Mr. Cuthbert Hall's evidence which bear upon the point, and to ask him whether he wished to make any explanation or observation. Perhaps I may read his letter. The Committee have, I think, in their minds the extracts from Mr. Hall's evidence.

3850. Will you read it?—Yes. "Paris, 4th May 1907. My dear colleague, I have perused the extracts from the evidence given by Mr. Cuthbert Hall, Managing Director of the Marconi Company, and formerly delegate of Montenegro at the International Radiotelegraphic Conference of Berlin, before the Committee appointed by the House of Commons to consider the acts of that Conference. These extracts, which bear the Nos. 1410-4 and 1633-7, have reference to a private conversation, in the course of which I expressed, according to the witness, opinions contrary to those which I maintained in my official capacity before the Conference. I should not have thought of offering the least observation on the form of the evidence, since Mr. Cuthbert Hall (who always showed perfect courtesy on the very rare occasions on which I had the honour of having relations with him at Berlin) has thought it right to make reference to private conversations in giving evidence before an official Committee, although the other parties to the conversations were not present, without having previously furnished himself with the necessary permission of his former colleagues, whom he was bringing into the matter, and above all without assuring himself that the inaccuracy of his recollection did not expose him to the commission of involuntary errors of interpretation. But I observe, with regret and surprise, a complete inexactitude in the account—at the best, very confused—which Mr. Cuthbert Hall has given of his interview with myself. In these circumstances, my duty and my position compel me to make a protest concerning the substance of his evidence. The interview to which allusion is made took place on the 15th October. One of our colleagues—who was not a member of the French delegation, and whom I do not

Chairman—continued.

think myself at liberty to name, without his permission—told me that Mr. Cuthbert Hall wished to be introduced to me, and thus to find an opportunity of explaining to me the reasons for the attitude of the Marconi Company and the grounds on which it was opposed to general and obligatory intercommunication. I readily consented to this request. Mr. Cuthbert Hall already knew that the instructions of my Government were precise on this question, and that I, for my part, was carrying them out with a profound conviction that in principle the obligation was equitable from an international point of view, advantageous to the wireless telegraph companies, and capable of being applied in practice. I will not set forth in detail this conversation, of which I made a note at the time. The Director of the Marconi Company, no longer maintaining the technical impossibility of intercommunication, invoked, in support of his contention, all the well-known arguments drawn from the well-known sacrifices already made by his company, the utility of a single working organization, regard for the protection of patents—arguments which do not bear serious examination. It was not difficult to refute them, and I will not dwell upon this refutation. Has not the company, moreover, as I remarked to Mr. Cuthbert Hall, itself accepted intercommunication in its contracts with the British Government? I cannot, therefore, understand the statements which Mr. Cuthbert Hall has attributed to me in extracts 1412 and 1414 (concluding paragraph), and of which, moreover, I entirely fail to grasp the real meaning. In extract No. 1633 (last sentence) Mr. Cuthbert Hall speaks as follows: He said (M. Bordelongue) he did not think that the service was of much importance from ship to shore; that the long distance service was what was important, and we should gain great advantages by agreeing to this Convention. At the close of our interview I again emphasised the interest which, in my opinion, the Marconi Company itself had in accepting intercommunication if it did not wish to put itself out of court, and, above all, if, having regard for its future, it wished to preserve the advantage over its rivals which it derived solely from its already existing organisation. I added that it was not the revenue from traffic between the shore and ships at sea that would ever ensure a return on the large capital which the Wireless Telegraph Company had already

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already spent; that the true financial development of wireless telegraphy depended, in my opinion, on its use for communication between countries separated by the sea, and that the Marconi Company ran the risk of finding itself refused concessions for working on territory other than that of the United Kingdom if it did not accept intercommunication in good time, and if it entered into a conflict with the States adhering to the proposed Convention. I still hold this opinion, which is far removed from that attributed to me by Mr. Cuthbert Hall. I should add, from a general point of view, that no one, least of all Mr. Cuthbert Hall, can be unaware that the French delegation in its entirety has always been, at the preliminary Conference as well as at the last Conference, a determined advocate of the principle of general intercommunication. It has, in fact, always thought that the application of this principle is an international duty dictated by regard for the scientific progress of radiotelegraphy, for the technical improvement of apparatus, for the free exchange of traffic, and that States which did not sign it would be ignoring the obligations and advantages of the Telegraph Union and taking a retrograde step in rendering impossible the exchange of a portion of the correspondence of the public by reason of the restriction imposed on the use of certain kinds of apparatus. To the enforcement of general intercommunication, from which I have always thought, personally, Great Britain was bound to derive special benefit by reason of the great importance of her shipping, the Marconi Company has for a long time offered objections of a technical character, and claimed that its apparatus was unable to communicate with the apparatus of other systems. The French Administration has put this to the test, and the Government has reported to Parliament (Senate sitting of January 15th, 1907) that this assertion was unfounded. Trials made at Ushant, at Dieppe, and at New-haven, and, finally, the very undertaking given by the Marconi Company in its contracts with the Post Office have shown abundantly the emptiness of the company's objections. The English delegation knows also that, if our delegation modified, in form only, the line it took on certain points with regard to general intercommunication, and particularly, if at the opening of the Conference it associated itself, in order to secure a general adhesion to this principle, with the postponement of the voting on this question, that attitude was prompted by the desire to save the British delegation from being put at once in a conspicuous minority. If this had happened, the British delegation would afterwards have been unable, except with the utmost difficulty, to bring about a discussion designed to defend certain interests which they were resolved to safeguard, and which they succeeded in safeguarding with an ability for which you will perhaps allow me again to express my admiration. They know, indeed, that it was the vote of the French delegation which determined the rejection of the article with regard to the boycotting of non-adhering companies, the adoption of which would have

Chairman—continued.

rendered almost impossible the operations of the Marconi Company. In recording this vote our delegation were mainly actuated by a desire to support the delegation of Great Britain, but it also entertained the conviction that the interests of the Marconi Company, if properly understood, would induce it to accept with promptitude a system of intercommunication which offers to it the same advantages as to all others. I may, therefore, be permitted to say that Mr. Cuthbert Hall gratuitously assigns to me opinions, no only utterly opposed to my constant attitude and to the statements I made both officially to the Conference and unofficially to many of my colleagues, but also absolutely inconsistent with what I said to him. I could add, in support of these statements, other particulars in regard to our conversation, but I consider that courtesy compels me to reply only to the statements contained in the extracts with which I have become acquainted. You have my permission, if you think fit, to communicate this letter to the Parliamentary Committee. Believe me, my dear colleague, most sincerely yours, (Signed) J. BORDELONGUE."

3851. Now have you anything to say regarding the Italian delegates?—As regards the Italian delegates, I have not communicated with them as I did with M. Bordelongue, because the particular delegate was not specified by Mr. Cuthbert Hall. As bearing on the attitude they are alleged to have adopted, I should like to call attention to two or three extracts from the proceedings of the Conference. The first is at page 26 of the *Procès Verbaux*. At the second meeting Senator Colombo, the principal Italian delegate, used the following words:—"The Italian delegation recognises the importance to international relations of the principle of free radiotelegraphic intercommunication between different systems of radiotelegraphy," and at the twelfth meeting, on page 109 of the *Procès Verbaux*, Senator Colombo again used these words, that the Italian Government "proposed to open negotiations with M. Marconi and his company with the object of being able to ratify the Convention and put it in force at an earlier date"—that is to say, at an earlier date than the date at which the agreement of M. Marconi with his Government would expire. I may also call attention to Senator Colombo's statement at page 60, where also he says: "But these considerations, which are in their nature moral, as well as legal, will not prevent our endeavouring to find methods of reconciling our position towards M. Marconi and his company with the desire to accept and apply as soon as possible the principle of free intercommunication sanctioned by Article 3." Those are official declarations of the first Italian delegate at the Conference. I should like also, as confirming, in an unofficial publication, the attitude officially taken by the delegates to call the attention of the Committee to an article by Captain Pouchain, who was the Naval expert on the Italian Delegation, which was published in the *Rivista Marittima*, of February, 1907, of which he has sent me a copy. The whole article entirely agrees

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agrees with the attitude officially taken by the Italian Delegates at the Conference, and I may read one extract of a few words. He says "(at the second Conference) other systems having been brought into practical use by other States, it was no longer possible to maintain the thesis of the difficulty, still less of the impossibility, of intercommunication between different systems, as had been maintained by the Italian Delegation at the preceding Conference." That is in this unofficial publication of Captain Pouchain's.

3852. Then as regards the Japanese and Russian delegates, I think you wish to say something about Mr. Cuthbert Hall's evidence?—There has not, of course, been time to communicate with the Japanese delegates. In the case of the Russian delegates, Mr. Cuthbert Hall has not specified the particular delegate, I do not propose to quote private conversations, but I think I may say that, although I and other members of the Delegation were in close communication with the members of the Japanese Delegation throughout the Conference, and though I had occasional communication with the Russian Delegation, nothing in our private intercourse showed any attitude on their part in any way inconsistent with the attitude they took up before the Conference.

3853. Do you wish to put in any evidence with reference to the arrangements between the Marconi Company and the Dutch and Argentine Governments?—Yes. Some doubts were expressed—or perhaps I should rather say that the representatives of the Marconi Company were unaware of the nature of the arrangement as regards stations in the Argentine Republic—and I think were not perhaps fully aware of the arrangement with the Netherlands Government. As regards the Argentine, I have here the translation of a decree of the 31st August, 1906, authorising the establishment of radiotelegraph stations. The first Article of this decree, which authorises the Marconi Wireless Telegraph Company of the River Plate to establish certain ship and shore stations, is to the following effect: "The establishment and working of radiotelegraphic communications shall be subject in all respects to the provisions of the National Telegraph Law of 1875 and of the Law No. 4408, the Company being at the same time bound to comply with the laws and regulations which may be imposed on this subject in future." As the Argentine Government signed the Convention and renounced the right to exempt stations, they will be bound to impose laws or regulations requiring all stations on their territory to intercommunicate generally. The Marconi shore stations which are being, or have been, put up in the Argentine will necessarily be subject to the Convention, and therefore to the obligation of general intercommunication, because they are subject to any laws or regulations which may be imposed in future in the Argentine Republic. I have here an official publication of the regulations issued by the Netherlands Government with reference to the ship stations carrying the Dutch Flag and fitted with Marconi apparatus. This contains a number of articles, and among them No. 16, by which all

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Marconi ships are not only under the obligation to intercommunicate with the Telefunken station at Scheveningen, but they come also under the obligation to intercommunicate wherever they go with shore stations whatever the system of the shore stations.

Mr. Adkins.

3854. Has that been signed by the Marconi Company?—That has been accepted by the Marconi Company, and that was confirmed by Mr. Cuthbert Hall and Mr. Marconi. Then I may mention also, as regards the arrangement with the Belgian Government, that I have here the translation of a letter from the Belgian Telegraph Administration to the General Post Office, dated the 18th October, 1902, summarising the provisions of the Convention under which Marconi stations were put into the cross-Channel boats between Dover and Ostend. Those boats communicate with a station at Nieuport. The third paragraph of this letter is to the following effect: "It is stipulated, moreover, that the above restrictive clauses regarding the exclusive employment of the Marconi system shall be regarded as null and void if, on account of the interpretation of the International Telegraph Conventions or of a new framing of those Conventions, the Belgian Government finds itself obliged to accept messages from stations of all systems of wireless telegraphy able to communicate with its own stations." That is to say, that pending the signature of the General Convention these stations were entitled to refuse to intercommunicate with other systems, and that if under the International Convention the Belgian Government finds itself obliged to accept messages from stations on all systems, then these Marconi stations would be bound to intercommunicate too. I put in these documents to show the precise position in those respects. (*Vide Appendix No. 10.*)

3855. And you have described the main features of them?—Yes.

3856. Have you in use stations other than Marconi stations for the public service?—It has been stated repeatedly in evidence that there was no other system carrying on an actual and effective commercial service. We have made inquiries as to the traffic transacted by the De Forest stations on the coasts of the United States, and we have received information that during the six months ended April 30th, 1907, they transmitted from ship to shore 46,182 messages, and from shore to ship 32,887 messages, a total of 79,069, which, if it went on over all the year in the same proportion, would amount to a little over 158,000 messages in the year. Perhaps for the purpose of comparison I may mention that the total number of messages transmitted and received by the Marconi shore stations in the United Kingdom, leaving out of account the news service from Poldhu, as to which I have no statistics, was 16,035 in a year; that is to say, that on those figures the business transacted by the American De Forest stations is very much larger than the amount of business transacted

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transacted at the Marconi stations in Great Britain. Mr. Cuthbert Hall stated also that the total amount of traffic transmitted and received in a year by Marconi stations (as I understood, by Marconi stations in other countries as well as in Great Britain) was about a million and a quarter words. The traffic transmitted by the American De Forest stations, if each telegram be assumed to be 15 words, would amount to 2,370,000 words—nearly double the total amount of traffic transacted by the Marconi stations. Those figures are given by the American De Forest Company; of course I have no means of checking them any more than I have in the case of the Marconi Company.

Mr. Lambert.

3857. They would not be official figures of the United States Government?—They are not official Government figures, because the United States Government does not carry on the telegraphic service of the country in the way other countries do. It is a matter of private enterprise.

Chairman.

3858. They are the company's figures?—They are the company's figures.

Mr. Lambert.

3859. Have you any check upon the number of wireless messages that are sent from ship to shore and from shore to ship in the United Kingdom?—In this country we have a check.

3860. Commercial messages, I mean?—Yes, we have a check as to those, because all those messages practically pass over Post Office wires, so that we have in fact the figure known. 16,000 is the number of the messages transmitted over the Post Office wires. That includes the very large majority of messages. It is possible there may be a few which are handed in actually at the stations and which do not pass over the Post Office wires; therefore those figures may be a little under the mark, but the difference will not be great. As to the million and a quarter words stated by Mr. Cuthbert Hall (which referred to the stations outside the United Kingdom, I understand, as well as to those in the United Kingdom), I have no means of checking that figure any more than in the case of the figures given by the De Forest Company.

3861. How many words over the Post Office wires come through wireless telegraphy?—I am afraid I have not got that figure, but taking the 16,000 messages, and assuming the same figure of 15 words a message, that would amount to about 240,000 words. I am told that the average is more nearly 20 words a message than 15; if 20 words a message it would be 320,000 words.

3862. Have you the figures of any other company?—I have also the figures as regards Scheveningen, a station in the Netherlands—the Dutch station.

3863. What is the system there?—That is a

Mr. Lambert—continued.

Telefunken station. We are officially informed by the Netherlands Administration that 2,700 messages were sent and received in 1906. That is a larger number than the number sent and received over the Post Office wires at any of the Marconi stations in this country, except Brow Head and the Lizard. Those are the two stations at which the greatest amount of traffic is transacted.

Chairman.

3864. Do you desire to put in a legal opinion with reference to the question of the patent rights of the Marconi Company as affecting the power of the Company to carry out the provisions?—Yes. Some question has been raised upon that point. I propose, if the Committee desire, to hand in a memorandum of Sir Robert Hunter, it may probably save the time of the Committee. The memorandum wants revising again, therefore, perhaps I may hand it in tomorrow; it is practically complete. (*Vide* Appendix No. 11.)

3865. Yes. Do you wish to offer some observations as to the allegation that the Convention will unduly restrict the progress of scientific invention?—I think there has, perhaps, been some misunderstanding on that point. It has been assumed that the Convention is more restricted in that respect than it really is. The point is an important one because undoubtedly it would be a serious objection to the Convention if it did restrict in any important way the progress of scientific invention. I should therefore like to point out that Article 3 of the Convention—the Article regulating general intercommunication—does not in any way lay down that every station must use the particular apparatus which can generally intercommunicate. It lays down that intercommunication must not be refused merely on account of the differences of systems; but if, physically, intercommunication cannot take place there is naturally no obligation that it should take place and no obligation to adopt or adapt apparatus in such a manner that it can take place; that is to say, if the Convention were now in force, and assuming for the moment that continuous wave systems could not intercommunicate with spark systems, there would still be no reason whatever, so far as the Convention is concerned, why every station in this country should not be converted tomorrow into a continuous wave system. There is absolutely nothing in the Convention to prevent that.

Mr. Adkins.

3866. Surely if intercommunication between those two systems were impossible, and all our shore stations were converted from one system into the other, there would then be no intercommunication possible with regard to any of our shore stations, except in the case of ships fitted with the same method?—Quite so. The ships would then have to find some method of communicating with those stations. Article I. of the regulations says that the choice of systems is free, the only limitation of them being that they "must

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"must keep pace as far as possible with scientific and technical progress." When we proposed Article 4 of the final Protocol, I said that Article 3 was not to be understood as prohibiting the use of any system which could not physically intercommunicate with other systems. The only objection taken to our proposal was that it was superfluous, that the meaning of Article 3 in that respect was so clear that it was superfluous to state it explicitly in another Article. We thought, however, that it was an important point, and therefore pressed that that Article should be inserted; but it is not an exception to Article 3. It is an interpretation of Article 3.

Chairman.

3867. It modifies it, rather?—It declares the fact that Article 3 does not prohibit such systems—that is to say, a shore station under the Convention can use what system it likes, and it is a matter for the ships that wish to communicate with that station to adopt the system which can communicate with it.

Mr. Adkins.

3868. Surely if a shore station were fitted with such a system that must mean now that the vast bulk of the ships of other nations could not communicate with it, and we are then put back in the same position as we are at present of being able to communicate only with ships fitted with the Marconi system?—No. I think there is an essential difference. If the shore station adopted a continuous wave system as appearing to be the best, the ships would be at liberty to adopt the Marconi continuous wave system or the Poulsen continuous wave system or any other continuous wave system. It is obvious that there must be a certain difficulty, arising from the circumstances of the case, in changing the systems generally in use from spark systems to continuous wave systems, because it means dispensing with a certain amount of the plant that is already in use and substituting other plant for it. But if the continuous wave system proves to be the better, then undoubtedly that substitution will take place. My point is that the Convention interposes no obstacle to that because, supposing the Marconi stations fitted themselves with a continuous wave system and the Convention was in force, ships might adopt any other system that might be necessary to enable them to communicate, the Poulsen, the Fessenden, or whatever it was; so that in that respect the progress of scientific improvements is, I think, not in any way impeded by the Convention

Chairman

3869. You think it would give greater latitude?—I think it would.

Mr. Adkins.

3870. Suppose some of the shore stations in this country had their system changed from the spark system to the continuous wave system,
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Mr. Adkins—continued.

and suppose the Convention were ratified, they would be scheduled in particular places and all ships coming up Channel would know that they were there, and when they were within range of them. Suppose the system were changed and some of the stations—I presume that under the Convention that fact would have to be intimated to those who were in the Convention and their ships when coming up Channel—would know that they could no longer communicate with them unless they altered their apparatus?—The information would be communicated to Berne and circulated from there to all the parties concerned. Naturally sufficient notice would be given to enable ships to adapt themselves, and very likely if this change took place, during the period of transition a good many of them would carry double apparatus, which, so far as the receiving apparatus is concerned, is a very simple matter I understand.

Chairman.

3871. Would the Convention hinder in any way the use of systems able to direct the electric waves?—That, again, is another point to which Mr. Marconi alluded. He said the Convention did not provide for directive systems, systems which are able to direct their waves. I should like to point out that that was definitely considered and contemplated, as will be seen at page 58 of the *Procès Verbaux*. Speaking on the question of exempted stations, I mentioned that: "So soon as science discovers means to direct the waves, it will be possible to divide the traffic according to the geographical position of the ship," and I mentioned certain other points: "It may be replied, perhaps, that these requirements can be met by amending Article 3 so as to recognise restricted services defined according to the different circumstances which I have just mentioned, without, however, admitting any distinction of system." Restricted services were recognised, and one of the forms of restriction of service might be restriction of direction; that is to say, you might have a station which employed a directive method and it might be announced as communicating with ships between certain bearings; it might be announced that that shore station would communicate with ships between 180 and 210 degrees, or between south and south-east, or whatever bearings were appropriate; in that way the Convention would perfectly admit of services of that particular character. They might also be provided for by the provision regarding the exempted stations. To show that that point was not overlooked, I may mention that Senator Colombo, the principal Italian delegate, also referred to directive systems as one of the reasons for which he supported the provision with regard to exempted stations. He said at page 60 of the *Procès Verbaux*: "We approve this reservation" (that is to say the reservation with regard to exempted stations) "also because of the reasonable liberty that it gives to each State, which is very important to Italy in view of the extent of its coasts and seas. We are at this moment making experiments in directing

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Mr. H. BABINGTON SMITH, C.B., C.S.I.

[Continued.]

Chairman—continued.

directing messages which would not be possible without such liberty." I merely wish to call attention to the fact that the possibility of a directive system was not overlooked, but was expressly provided for in two ways—by the possibility of a restricted service, and by the possibility of exempted stations.

3872. Now, as regards the restricted wave lengths, is there anything you wish to say on that?—There, again, I think it has been assumed that the amount of latitude and liberty allowed under the Convention is less than is actually the case. In the first place, shore-to-shore stations are absolutely free from any restriction as regards wave length except such restriction as may be imposed by the Government of their own country. So far as the Convention is concerned they are absolutely free; they are not even excluded from the use of the wave lengths reserved for naval purposes. Then, again, experimental shore stations are equally free—they can be authorised by the Government of the country in which they are situated to use any wave length whatever that is thought suitable. Then as regards stations which do come under the Convention, it is only for stations open to *general public correspondence* that the two particular wave lengths of 300 and 600 metres are pre-

Chairman—continued.

scribed. Other shore stations—that is, stations for restricted public correspondence, for instance—among which would be included long-distance stations, private stations, stations employing a directive method, stations on lightships, stations for a particular cross-channel service (many other kinds may come under that heading), those can be authorised to employ any wave length that their Government may approve—provided that it is not in the naval "reserve"—between 600 and 1,600 metres. Then again, as regards ships, all ships are required to be able to use a wave of 300 metres because of the general convenience of being able to communicate on a single wave length, but they may be authorised to use any other wave length not exceeding 600 metres. A provision was not inserted allowing them to use a wave length over 1,600 metres, because at present I do not think those long wave lengths are quite appropriate for use on board ship. The Committee will see from that that the latitude that is allowed in a great many stations in the use of "wave length" is very great; and that it allows for adaptation to particular circumstances. That was a point which we had distinctly in view in advocating the particular system regarding wave lengths which we did advocate.

Tuesday, 28th May 1907.

MEMBERS PRESENT:

Mr. Adkins.
Mr. Sydney Buxton.
Sir John Dickson-Poynder.
Mr. Gwynn.
Mr. Lambert.

Mr. Arthur Lee.
Mr. Macpherson.
Sir Gilbert Parker.
Sir Edward Sassoon.

SIR JOHN DICKSON-POYNDER, BART., IN THE CHAIR.

Mr. H. CUTHBERT HALL, recalled; and further Examined.

Chairman.

3873. You desired to come before the Committee again to put in evidence on certain points that had been raised by previous witnesses?—Yes.

3874. Perhaps it would guide you in the course of your evidence and the statements that you desire to make, if I inform you that the Committee have decided that they do not desire to hear any statements whatever further with regard to any of the foreign delegates—or indeed any delegates—or conversations that may have taken place between yourself and them. It did arise in our evidence before, and perhaps it would have been better if I had ruled it out then, anyway it is quite outside the hearing of this Committee. We have had a reply from one of the delegates and there the matter closes. Therefore on that score we do not desire to hear any further statement. Neither does the Committee desire to hear any further statement from you as regards the effect of the Convention upon the Marconi Company. The Committee consider that they have received full and ample evidence from you on that point. Therefore we would ask you please to confine your statements now merely to this, if you desire to do so, to rebut or to argue evidence that has been given in connection with the effect that the Convention might have upon National and Imperial interests. If you could as briefly as possible bring forward you statements under that head the Committee would be grateful?—I should like to point out to the Committee in regard to the very unimportant question of the views of the foreign delegates, that what I said on that point has been made the subject of an elaborate, I may say *laboured*, attempt at refutation by the Post Office, and it seems rather unfair, having made certain statements—

3875. I am afraid you are now rather entering upon the very point that has already been

Chairman—continued.

ruled out by the Committee?—I am not entering on the point itself, Sir; I am entering on the question of whether it is open to me to discuss it.

3876. That has been ruled against you, and you must please abide by the decision of the Committee. The Committee have ruled—and I am speaking for the Committee now—that that question is not to be discussed. Proceed, please, to the next point, and we shall be much obliged?—I merely point out that I made a statement which has been disputed, and that I have not had an opportunity of replying to it.

3877. Will you proceed now in the direction which I have indicated?—Sir William Preece's answer to Question 3584: The Postmaster-General put to Sir William Preece Clause 4 of the Terms of Settlement of an action brought by Lloyd's against the Marconi Company (I have put in those terms of settlement already) and asked Sir William Preece's views upon it. He replied: "I should say that looks like blackmailing." That is the answer: he is evidently ignorant of the meaning of the word, but as it was apparently intended to be used in censure, if not execration of the arrangement, I wish to say a few words about it. I do not know whether Sir William Preece intended to include Lloyd's in the charge of blackmailing, but if so, the late Sir Henry Hozier, who made the settlement on behalf of Lloyd's, must be entirely exonerated. I take entire responsibility for the inclusion of this clause in the terms of settlement, although by an oversight on the part of those responsible for drafting the terms, it does not go quite as far as I intended. I should say that although the action was brought by Lloyd's, we were in a position practically to dictate the terms of settlement, as the Committee will see if they read them, the settlement being entirely

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Mr. H. CUTHBERT HALL.

[Continued.]

Chairman—continued.

favourable to the Marconi Company. Prior to Lloyd's agreement with the Marconi Company in 1901, Lloyd's had spent considerable sums of money, according to their own statement, in experimenting with what they described as "other systems." These were the Hozier-Brown, and the Maskelyne and Cook, etc. The results were apparently not satisfactory. Sir Henry Hozier offered to transfer the benefit of all or some of these systems to us, but as we did not wish to be made a dumping-ground for what we regarded as rubbish, we declined the offer. In 1901, the Lloyd's contract was entered into with the Marconi Company; it contains the recital: "And whereas Lloyd's is of opinion that it is desirable that one system of wireless telegraphy should be in general use. And whereas the Marconi system is in such general use, and has been proved to the satisfaction of Lloyd's to be a good working system." It also contains a clause which provides that Lloyd's will not during the currency of the agreement, use at or in connection with any of their stations any system of wireless telegraphy other than the Marconi system. Notwithstanding the view expressed by the recital, despite the clause in the contract, and notwithstanding the failure of experiments with other systems, we have reason to believe that between the years 1901 and 1905—the date of the settlement of the action brought by Lloyd's—Lloyd's, apparently for the reason already indicated in my evidence-in-chief, were advising against the adoption of the Marconi system. I therefore thought it desirable expressly to bind Lloyd's in the manner indicated in the clause quoted. I intended that by this clause Lloyd's should be bound to use their best endeavours to secure licences, either for Lloyd's or for ourselves, not only from the British Government, but from other Governments. By an oversight this last provision was omitted. The clause provides solely that Lloyd's are to use their best endeavours to induce the British Government not to grant licences to any body but Lloyd's and the Marconi Company. Having regard to the terms of settlement, which were entirely favourable to the Marconi Company—remarkably favourable in view of the fact that we were defendants in the action—we had not the slightest objection to their being published. Lloyd's, however, stipulated that the terms should not be published. The proviso, "British or foreign Government departments—I refer to Clause 22—alone excepted" was inserted at the Marconi Company's instance; and within a few days after the settlement in the action we sent copies of the terms of settlement to a number of the Government Departments. The terms were also subsequently published in consequence of an action we had to bring against Lloyd's to enforce the terms. Presumably, Sir William Preece's suggestion is that we were blackmailing the British Government. The word is, as the Committee will of course recognise, utterly inappropriate, but it seems clear that if we had intended, pursuant to the clause, to bring any improper pressure to bear upon the British Government, we should not have provided for communication of the terms to the

Chairman—continued.

Government, and have rapidly communicated them. I should not have taken up the time of the Committee at all with this statement, only the question was put, and elicited such a very remarkable reply.

3878. You desire to deal with Sir Robert Hunter's Memorandum?—Sir Robert Hunter's Memorandum, Appendix No. 4. I have had no opportunity of conferring with our legal advisers on this Memorandum, but I wish to offer the following observations: I have handed in opinions that inter-communication would prejudice patent rights, by counsel who can offer more than one claim to being considered eminent authorities. I have also handed in an opinion by Mr. Warmington, K.C., as to the true construction of Clause 10 of the Post Office Contract, namely, that if inter-communication would prejudice our patent rights, we cannot be compelled by that contract to accept inter-communication. I believe (I may be misinformed) that the present Government, particularly, is not in a position to treat an opinion by Mr. Warmington as other than extremely weighty. It might fairly have been matched by the opinion of some recognised eminent members of the Chancery Bar, or by the opinion of the Law Officers of the Crown. I wish to draw the attention of the Committee to the fact that there is set against it the opinion of Sir Robert Hunter, the solicitor to the Post Office, who is responsible for the drawing up of the agreement in dispute. The aspects of the matter to which Sir Robert Hunter's observations—1 (a), and 2, apply, were fully considered by counsel, and an opinion was arrived at which, as the Committee will see, is entirely in conflict with that reached by Sir Robert Hunter. The reason given by the Post Office for concluding that Clause 10 of the Post Office Contract does not protect us from compulsory inter-communication (a reason stated in Mr. Babington Smith's evidence, and now further dealt with by Sir Robert Hunter—namely, that "without prejudice to patent rights" is notice of no waiver) was considered by counsel before I gave my first evidence. I quoted that opinion then, but for some reason it does not seem to have been incorporated in the proof of my evidence. Counsel said: "Mr. Babington Smith's evidence is not expressed in a very clear manner on this point, but if this is the argument which he intended to adduce—namely, notice of no waiver. I can only say that, in my view, it is contrary to good law and good sense. The argument seems to me to be hopelessly fallacious. My own opinion, as to the true construction of Clause 10, is already given above in my former opinion." The opinion as to the construction of Clause 10 I have already put in—our view as to the construction of Clause 10. With regard to Section 3 of Sir Robert Hunter's Memorandum—

Mr. Adkins.

3879. Whose opinion was that which you were reading?—That is, the opinion of Mr. J. M. Gover. With regard to Section 3 of Sir Robert Hunter's Memorandum, he mis-states my position. He says that "he" (Mr. Hall) "asserts that

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Mr. Adkins—continued.

that if the Marconi stations are exempted from the obligation to intercommunicate the Government cannot establish other stations in accordance with the Protocol, because all other systems infringe the Marconi patents." My statement was that the Government is not in a position definitely to pledge itself to the erection of non-exempted stations. I might correctly broaden that statement by saying that the Government is not in a position definitely to pledge itself even to the provision of non-exempted stations. I drew attention to this point in a letter which I addressed to the delegates while they were at the Conference. If there were no patents for wireless telegraphy the Government could pledge itself, but the pledge proposed to be given for the erection of a non-exempted for every exempted station appears to me to be based upon an assumption. My suggestion is that it is not proper to enter into a binding undertaking, the fulfilment of which depends upon conditions which have not been ascertained. If there were very strong presumptive evidence that we had no valid patents it would yet appear to me to be improper to enter into a binding undertaking, which could only be fulfilled if the presumption were found to be well based. I say, however, on the contrary, that there is very strong presumptive evidence that we have patents controlling all wireless telegraphy. Secondly, we have patents for tuning. The Convention provides for the use of wireless telegraph apparatus, probably covered by our first patent: it also provides for the use of syntonised apparatus, the subject of further patents. I wish to refer the Committee to the answers given to Questions 1445, 1448, and 1450, and I wish to comment particularly on Sir Robert Hunter's observation that the decision in the United States against the De Forest Company does not seem to be effective in restraining the De Forest Company from carrying on wireless telegraphy in this country. I am not quite sure—

Chairman.

3880. That is a misprint which has been corrected in the proof: "in this country" goes on to the next paragraph?—I see. Well, he makes the statement that "the decision in the United States against the De Forest Company is a decision of a State Court only," which I take to mean that he considers that the decision in the United States only operates in the particular State in which the case was tried. The case was tried in the State of New York, and if that is the meaning of this sentence it means that that judgment was only effective in the State of New York. It is the first suggestion I have had that it has such a limited effect. I have cabled to our American Company, and they reply that the decision has effect throughout the whole of the United States—in every State of the United States—so that if by saying "the decision in the United States against the De Forest Company is a decision of a State Court only," Sir Robert Hunter means that it only applies to the particu-

Chairman—continued.

lar State in which the decision was rendered, the statement is not correct.

3881. That deals with the first question?—I am speaking of Sir Robert Hunter's Memorandum.

3883. The third paragraph of No. 3. What is

3883. The third paragraph of No. 3. What is your next point?—My next point is that I want to point out that the decision in the De Forest case is strong presumptive evidence that the Marconi patent is a controlling patent governing all wireless telegraphy. The decision has, of course, no legal effect outside the United States, but the De Forest defence in this action was "anticipation"—that the invention described by Marconi in his original patent had been anticipated. In order to prove "anticipation" it was not necessary to prove that the anticipation had taken place in the United States. Proof of anticipation in any part of the world would have sufficed to have protected the De Forest Company from having a judgment delivered against them. Therefore, De Forest cited the work of men all over the world: Lodge in England, Popoff in Russia, Branly in France, and so on, as alleged anticipations of Marconi's invention. The Judge in his summing up said what I have already quoted in my evidence, that Marconi was the first to describe and the first to achieve the definite transmission of intelligible signals by means of Hertz waves. The suggestion that that decision is not of very much value is, I think, not borne out by the facts. It has legal effect all over the United States. Because it was a question of anticipation it has some bearing upon the legal position not only in the United States but in other countries. Sir Robert Hunter makes it a point against us that we have taken no action in any country besides the United States, that many companies have started publicly, including the Lodge-Muirhead Company, who have supplied apparatus to the War Office (the War Office, by the way, wrote us recently that no system of wireless telegraphy had been adopted by them), and he says that we should be prejudiced in any patent proceedings through standing by during a long period, and letting other companies and persons embark capital in other systems. I think Sir Robert Hunter is wrong in his premises, if not bad in his law, upon this point—I say it with great respect. As to the premises, there have been scores of so-called wireless telegraph systems, more than I can name; they have come and many of them have gone, and they have generally been in the hands of very unsubstantial people; they have had very little capital behind them, and they have done no business of any consequence. The nominal capital of the Lodge-Muirhead Company is, I believe, £50,000, a small part of which has been subscribed in cash. The capitalisation of the Amalgamated Radio-Telegraph Company is £450,000, of which £32,500 only has been subscribed in cash. I am not aware that this company has any very serious financial backing; it has not been very long in existence. If it is assumed that these companies are comparable with

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with ours as companies carrying on a public telegraph service by means of wireless telegraph apparatus, and they have been brought into comparison with ours by the departmental delegates, their capital, I suggest, is ludicrously inadequate, and it can hardly be contended that these companies are good examples of companies and persons embarking capital in other systems which we are under the obligation to attack. It cannot be contended that the owners of the other systems have not notice of the existence of the Marconi patents. When they form those companies and start their businesses they are aware of the existence of the Marconi patents. Also I altogether dissent from the proposition that unless a man is prepared to fight a patent he ought to be willing to abandon the protection which the patent is intended to confer. It might as well be contended that we ought to sink our Navy unless we are prepared to declare war against some other power tomorrow. The patent confers certain rights for a certain period, in this country 14 years. At any time during that 14 years the owner of the patent can take proceedings under it. It is quite unreasonable to say that this protection should be cancelled unless he is prepared to take proceedings at an early period. It would be particularly unreasonable if the persons who were infringing were doing no serious business, and were very unsubstantial. I may mention that the patent action against the De Forest people in the States has had this result, that we incurred an expenditure of about £20,000, and, owing to their financial position, it has been impracticable to collect a single halfpenny of damages or costs against the De Forest Company. They have transferred their assets from one company to another—at least they purported to transfer their patents from one company to another, and none of those companies have any money. If certain people are not worth powder and shot on a patent action, it seems absurd to contend that we ought to take action, or be willing to surrender the protection that our patents are intended to confer. By offering our organisation for intercommunication, we enable unsuccessful competitors to build up a business on our backs, a business which they would have been unable to build up themselves unaided. We beget occasion for patent actions, and at the same time, by the fact of intercommunicating we prejudice our chances of success in such actions. I take leave to differ from Sir Robert Hunter, when he states that there is no foundation for my suggestion. On the second page of the memorandum, the third paragraph, he states that there is no foundation for my suggestion that the Crown can be in any way limited in the use it makes of a patented article. It is limited to the use of the article for the service of the Crown. The intention of the Crown in granting a patent is to confer protection on an inventor. It is immoral if one can use such a word to demand that the inventor shall not exercise the invention to which his patent relates, except under terms which will prejudice his patent rights. It is immoral for the Crown to insist on utilising this

Chairman—continued.

inventor's invention in such a fashion as to encourage and facilitate infringement of it. Wireless apparatus on a ship is of value only if stations are provided for communication with it. If the Government takes our patent, and utilises it for intercommunication with other systems, it encourages infringement. I will go further than this, and say that it is contrary to public policy to compel a trader to facilitate the operations of his competitors. That question has been the subject of decision in the Law Courts.

3884. Does that exhaust your comments on Sir Robert Hunter's Memorandum?—Yes, subject to legal advice. I have not had an opportunity of conferring with our legal advisers.

3885. What do you desire to refer to now?—I want to come to Captain Bethell's evidence.

3886. In relation to what?—The point in dispute is as to the attitude of the Admiralty.

3887. That opens up a question which is closed. Are there any other points? We could not possibly go into that without opening up the question of conversations which are ruled out?—What I wish to refer to is the statement that has been made here, to which Captain Bethell assented, that I was improperly going to the Admiralty for the purpose of worming out Admiralty secrets.

3888. That opens out the whole question which we are not going into?—I wish to urge respectfully before this Committee that extremely damaging statements have been made, and that I ought to have an opportunity of rebutting them. I made a point that before the Conference the Admiralty were strongly against intercommunication. I quoted certain documents. I traced it up to 1903, and after that I discussed Captain Bethell's statements to me on the subject.

3889. This is really opening up the whole question again. I have already given a decision upon that on behalf of the Committee, and I must ask you for, I think, the third time, to abstain from going into that question.

Sir Edward Sassoon.

3890. May I suggest that the rights of the case might be met by statements strictly limited and bearing upon this particular point, to which the witness has referred?—I have written out my statement very carefully, and it bears very directly on the point.

Chairman.

3891. If the statement is published, it opens out the whole question again, and the decision of the Committee is that these intercommunications which took place, or are alleged to have taken place between yourself and the Convention, are not to be gone over again. We have heard your version, and we have heard the reply, and by the general comment of the Committee, as I understand it, the Committee do not desire that the question shall be opened again. Are there any other points?—I want to urge upon the Committee

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mittee this, that exceedingly damaging statements have been made. The expression "misrepresentation all the way through" has been used.

3892. We have nothing to add to this decision, and I really must ask you not to proceed further with this branch of the question. If you have any further evidence, or any further statements to make with regard to statements which have been made by former witnesses in connection with the Convention, the Committee are prepared to hear you. I must ask you to abstain from any further remarks in the direction in which you were entering?—That is to say, that accusations of misrepresentation and most improper conduct are to be made, and I am to have no opportunity of meeting them—not by statements, but by actual correspondence.

3893. What further points have you to discuss?—Captain Bethell says he was dead against intercommunication. That seems to be the material point apart from the personal point. He says he has always been dead against general intercommunication, which he mentions was the only subject he discussed with me—the whole hog, he puts it—but that the provision for exempted stations removed all objection to the Convention. That was in answer to Question 3670. If "suitable regulations could be drawn up, together with provisions for their enforcement, I thought that there would be no objection to the Admiralty agreeing to this general intercommunication," and "if the exemption clause could be secured the objections to the Convention would disappear." In answer to Question 3667, he says: "I am dead against it at the present moment. What I call 'general intercommunication.' If, however, certain conditions could be fulfilled—if certain regulations could be drawn up and provisions for their enforcement the objections to the Convention would disappear." I am slightly paraphrasing the evidence.

3894. You must take it as it is printed here?—He said in his evidence—the actual words are: "I was dead against it. I may say I am dead against it at the present moment. What I call 'general intercommunication' is general compulsory intercommunication with no exceptions at all."

3895. Will you proceed now to make your comments upon that?—He goes on: "If, however"—

Mr. Adkins.

No, he does not go on there.

Chairman.

3896. What is the point you wish to bring forward, because we wish to get on. We have another witness to examine?—He goes on to say in his evidence that if the exemption clause could be secured the objection to the Convention would disappear. I think the Committee will agree that that is a correct statement of what he said. He objected to general compulsory intercommunication because it would jeopardise temporarily, at any rate, the Marconi organisation, which was valuable to the Admiralty. In answer to Ques-

Chairman—continued.

tion 3672, he said, "They had built up an organisation which undoubtedly, in any time of emergency, would be of great benefit to the Admiralty, and I did not wish to say anything which would tend in any way to jeopardise that organisation, even if it were for only a short time." He added, "there will be a certain amount of disorganisation at the first from general intercommunication" (that was in answer to Question 3673), "but it is a thing that will settle itself very easily and very quickly." No reasons of his own are given for the conclusion that the difficulties of general intercommunication would be rapidly solved, nor does he meet our arguments against the possibility of general intercommunication. He adopts, however, the views put forward by Commander Payne at Question 3642, and Lieutenant Loring at Question 1078, for believing that general intercommunication would present no serious difficulty. They point out in answer to those questions that very often very large numbers of ships of the Navy are working together (I think 30 or 40 vessels are mentioned) at a time, and that the difficulties of intercommunication under those circumstances are very much greater than those which will arise under the conditions which I indicate. This in no sense disproves our contentions. We say that general intercommunication is impracticable because it involves at the same time great division of authority, competition between the different authorities, common use of stations, and cordial and effective co-operation. All these conditions have together to be fulfilled. These conditions do not exist in the cases quoted by Commander Payne and Lieutenant Loring. All the Naval ships are subject to one authority. That authority has greater powers even than any single commercial organisation in that it can enforce Naval discipline. The element of commercial competition does not exist. The ships of the Navy are not in competition with one another. It is, therefore, not made out that the dislocation would be only temporary. Captain Bethell stated, however, that he did not wish to risk even temporary dislocation, and was dead against compulsory intercommunication for fear of this temporary dislocation of a number of the important stations of the Marconi Company, which are of value to the Admiralty. That was in answer to Question 3674. He considered that the objections would disappear if certain stations were exempted. The provisions for exempted stations and stations for restricted services have also been pointed to, as meeting the objection raised by our company, that intercommunication would hamper scientific development. We consider these provisions are from both points of view—the prevention of dislocation, and security for scientific development—absolutely inadequate. There are two probable causes of dislocation of the service: One, the exempted stations in the United Kingdom working with exempted ships are liable to be interfered with by the non-exempted stations, and non-exempted ships. The exempted stations and exempted ships would be under one control, but the non-exempted stations and non-exempted ships will represent promiscuous

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promiscuous working by a number of competitors. Persons who are not specialists will be free to take part in the service. The successful conduct of the public telegraphic service is a speciality. The second cause of dislocation has been admitted by the Departmental witnesses. They have repeatedly stated, in reply to Questions 1118, 1146, and 1147—Mr. Gavey, again, in Questions 1998, 1999, and 2000—that if we do not accept intercommunication we shall lose the foreign ships, and I cannot find any provision in the Convention enabling ships carrying the flag of countries which do not agree to exemption to carry an exempted service. If we agree to intercommunication we run a risk of disorganisation of our service, which is admitted by Captain Bethell and by other witnesses. Our contention is that it would be permanently disorganised; Captain Bethell says it will be only temporarily disorganised; but if we do not accept intercommunication, as the Departmental witnesses have pointed out, a great number of the foreign ships will be compelled to abandon our service. The clause for exemption is also quite valueless, in our opinion as making provision for scientific development. Scientific development in a matter of this kind has to be made in application, and there must be adequate financial inducement to develop. Scientific improvements are not turned out of the laboratory finished products. Development and improvement is a gradual process which takes place in application. A number of stations for experimental purposes would have been almost of as much value for securing scientific development as exempted stations and stations for restricted service. The Convention is a skillfully devised instrument for breaking up our organisation. I have shown why it will have that effect. The Admiralty delegates agreed that if we do not accept intercommunication we shall lose a good deal of business; at the same time, if we do accept it, they admit probable or possible dislocation of our service, and they are quite unable to refute our arguments that it will result in permanent dislocation of our service. The German Government, which devised this instrument for breaking up our organisation, agrees it is effective. If the Convention was objectionable, from the Admiralty standpoint, without the exempted stations, in that it would break up an organisation which the Admiralty thought of great value under certain circumstances, the provision for exempted stations does not remedy those defects. I have only two or three other points. Captain Bethell pressed the difficulty of adjusting disputes in answer to some questions by Sir Edward Sassoon.

3897. The delay of communicating with a foreign country, do you mean?—It was put to Captain Bethell that there would be very great difficulty in settling these disputes, that supposing a German ship used American apparatus for communicating with the Lizard station, if a dispute arose as to whether that German ship had obeyed the instructions of the Lizard station it would become a very complicated question to settle. The Lizard station, it was said, would first of all communicate with the British Government; then the British

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Government would communicate with the German Government and the German Government would communicate with the Shipping Company; the German Shipping Company would have to write to the American Company domiciled in the States, which was working the apparatus on the German ship, and by the time they arrived at that point probably the American operator would disown any responsibility for the breach of rules. Then the series of communications would go back again. It was suggested that that was an exaggerated statement. Captain Bethell, in answer to a question put by the Postmaster-General, said he did not know very much about it. The Postmaster-General said: "Is not the procedure exactly the same as the procedure that takes place at present under the Telegraph Convention—namely, that the one post office confers directly with another without using diplomatic means or delay," and Captain Bethell says: "So I believe; I do not know very much about it. (Q.) Your reference to diplomatic procedure and delay was a little far-fetched, was it not?—Undoubtedly it was; but I wanted to show that I was prepared to expect a little bit of delay if it went to that extent." It seems to me that the settlement of difficulties in this matter will not be the same as with regard to ordinary telegraphic disputes under the Telegraph Convention. Supposing the English Post Office, as the Postmaster-General suggests, dealt with these questions, and they did not go through the Foreign Office at all, and the German Post Office dealt with the questions on the other side, it would still involve communications from the Marconi Company working the coast station to the British Post Office, the British Post Office to the German Post Office, the German Post Office to the German Shipping Company, and the German Shipping Company to the particular company which was working the apparatus on its ships: there would still be a great number of persons to consult—a great many different organisations—and several of these organisations would not necessarily be specialists in carrying on a public telegraph service. When a question arises of dispute between France and Germany it is a question, of course, between the French Post Office and the German Post Office; there are only two authorities involved probably, and they are both organisations specially constituted for that sort of purpose. That is one of the difficulties which I have endeavoured to make clear in this Convention scheme of working—that you have a great many people involved who are not specialists, whose main object is not to carry on a wireless service at all, who are competitors in other matters, and that to have a large number of people involved at all is in itself a very great difficulty. The difficulty is still further enhanced if the great number of people involved are not specialists in the business. Shipping companies certainly understand nothing at all about telegraphy. A very good example of that sort of thing we had not very long ago: A German shipping company had equipped a ship with the apparatus of the Telefunken Company; some dispute arose as to a message in which we were

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were in no sense concerned, and the German shipping company (showing how absolutely at sea they were as to the manner of running the service) wrote to the Marconi Company and said: "Will you settle this." The communication did not go through any of our stations; we had absolutely nothing whatever to do with it. They had wireless apparatus on board, and a dispute had arisen about a message, and so little did they know about the way in which the business was being run that they wrote to the Marconi Company, who had no concern with it one way or another. Also under the Telegraph Convention, to which the Postmaster-General referred, no technical questions arise of any importance; it is solely a question of the counting of messages and payments. Here, of course, the questions which arise will be very largely technical questions—whether a ship which is claimed to be in fault was using the correct wave length or whether it was breaking other technical rules. There is another suggestion—that if a ship is found to be a source of continual disturbance the station can refuse to accept the messages. It is admitted that that would be a very extreme measure; but anyhow refusal does not stop the disturbance. Supposing a German ship has repeatedly broken the regulations, and caused disturbance at the Lizard, and the Lizard says, "We will go to the point now of refusing communication with this ship altogether," that does not prevent the ship causing disturbance. You have no physical means of excluding the message, and the German ship can come off the Lizard station, and continually call and send messages; the refusal is no remedy at all for the disturbance.

3898. You mean it can take up its moorings off the Lizard?—Ships are in communication with the Lizard station—within range—very often for five or six hours, and that is quite sufficient time to disturb communications between the Lizard station and other ships which are obeying the rules and regulations. Those are all the points I have to mention except those which bear upon the refutation of certain statements which have been made.

Sir Gilbert Parker.

3899. This is the first time I have heard the statement made by yourself that the German Government desire to break the Marconi Company. Would you mind stating what reasons you have for making that statement?—I quoted in my evidence-in-chief that the German Government addressed this dispatch to certain Powers—I gave the date at the time, I think: "England, through the operations of the Marconi Company, threatens to obtain a monopoly in wireless telegraphy, similar to that which she has with the cables"; and they went on to indicate the Convention as a means of breaking up that monopoly. That letter was sent to various Powers, I think, prior to the first Berlin Conference. There are various confirmations of that statement in the pamphlet which the company sent out to Members of Parliament before the debate in the House—the dispatch of Baron Sternberg, the German Ambassador to the United States, and

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Sir Gilbert Parker—continued.

also in the views expressed by the German press, both before and after the Conference.

Sir Edward Sassoon.

3900. Are you referring to Appendix II. of this pamphlet?—That is one dispatch and the other, I think, is quoted elsewhere: "Previous to 1903 notes were dispatched to certain of the foreign Chancelleries, pointing out that England, through the operations of the Marconi Company, threatened to obtain a monopoly in wireless telegraphy, similar to that which she has of the cables, and calling upon the foreign Powers to assist in overthrowing or preventing the establishment of this monopoly. The Convention was indicated as a means to that end." Then it goes on with this dispatch of Baron Sternberg's. If you refer to the article in the "Vossische Zeitung," which was written before the last Conference, you will see it is said there that England, through the Marconi Company, had got a monopoly of the public telegraph service by means of wireless telegraph apparatus, and the Convention was the means of overthrowing that monopoly. I have been informed that it has been suggested that I wrote that article. I should like to say that I neither wrote it, nor inspired it, nor ever had any communication whatever with the newspaper. My attention was first drawn to it by a German, or rather indirectly by a German, who drew the attention of someone in my office to it.

Sir Gilbert Parker.

3901. You make a statement, I think, that exempted stations will prevent scientific development, and will not encourage progress?—My point is that the provision for exempted stations will not prevent dislocation of the traffic. Captain Bethell says that it is undesirable to dislocate the Marconi service, and that the provision of exempted stations will prevent dislocation. He indicated that he thought there would be temporary dislocation, owing to general inter-communication, but if certain stations could be exempted, particularly those where the traffic was very congested, then his objections to the Convention would disappear. I say that the provision of exempted stations will not prevent dislocation of traffic. The traffic will be dislocated in two ways: one, by the disturbance caused by the improper working of non-exempted stations—through the constitution of a service on incorrect lines—promiscuous working; and, secondly, our organisation will be dislocated because a lot of the foreign ships will be compelled to abandon our service. The Departmental witnesses themselves admitted that.

3902. I understood that, but I thought you had made another statement, of which I made a note, to the effect that with the exempted stations there would be a great deal of routine, and the tendency would not be towards the encouragement of scientific improvement. Perhaps I misunderstood you?—I said the provision of

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exempted stations does not meet our point—that the Convention will hamper scientific improvement. It is suggested that in the exempted stations we can use any apparatus we like, and in the restricted service stations we can use any apparatus we like. My point is that scientific development in a matter of this kind takes place in application, and that if you have no proper interest to apply and develop, there is no scientific improvement. That is amply shown by a number of cases in the past with regard to the electrical industry.

3903. You say that intercommunication means practically permanent disorganisation?—Yes.

3904. You do not think that the tuning would, to a large degree, overcome that?—No, I do not, because I think the disorganisation will be due to promiscuous working.

3905. Not to the different wave lengths?—If it were proposed that half a dozen companies properly organised for carrying on a wireless service should intercommunicate that would not be quite such an absurd proposition. The proposition is an indefinite number of heterogeneous users. It is exactly like the proposal originally made that members of the public should be at liberty to run trains over the railway companies' lines. You can run 100 trains through Clapham Junction in the day without any trouble if they are subject to the South-Western Company's control, but if members of the public were running those trains confusion would be almost certain to result. Of course, the great railway companies have running powers over one another's lines; but that is a question of one big organisation, properly constituted for the purpose of dealing with the speciality, and making arrangements with the other organisation.

3906. Do you consider that by the decision in the De Forest case in America your position is established, that is that your patent practically covers wireless telegraphy?—Absolutely, because the judgment was on the aerial and the earth, and all practical systems of wireless telegraphy involve the use of the aerial and the earth. The point has been made by the Lodge-Muirhead people that by introducing a condenser between the bottom of the aerial and the earth the patent is evaded, but for the purposes of Hertzian wave oscillations a condenser is a conductor.

3907. How is the position affected by the decision in the United States? What is the position now?—We won the action. The next thing was that we tried to enforce the judgment. The people controlling the business have transferred the assets, or what they call their assets, from one company to another. There is a list of the various transfers which have taken place. The last thing they did was to bring out a prospectus, in which they plainly stated that the De Forest people had amalgamated with us; that they had a controlling interest in the Marconi Company, and that they had amalgamated with us. That statement was, of course, very specifically denied in the States, and then they replied that the Marconi Company in London controlled the American Company, and that they had the control through the English company, and then we denied that. A few

Sir Gilbert Parker—continued.

months afterwards a statement appeared that Mr. Abraham White, the managing director of the De Forest Company, had abandoned his efforts to amalgamate the Marconi and the De Forest interests, although for some months before that prospectuses had been issued, and they had sold stock on the definite statement that they had combined with us. That is the class of people with whom we have been dealing, and those are the people on whom, by the way, Mr. Babington Smith relies for the statement that they have about a million messages more per annum than we have. They are in a much better position than we are according to that statement, and yet their last resort is to announce an amalgamation with the Marconi Company—a most improvident arrangement if they are doing so well.

3908. In spite of that decision in the De Forest case competition still exists?—Undoubtedly.

3909. To the same extent as before, and the decision has not really altered the position of the matter?—I do not consider there is any serious competition. That action against the De Forest people would never have been taken if I had been advised early enough. The American directors were extremely keen on a patent action—for what purpose I never quite gathered. If the English Board had known in time there would have been no action. They had not any serious business and they had no money, and they are not very reputable people, as is shown by the way in which they have behaved since.

Mr. Sydney Buxton.

3910. Have not you recently been refused an injunction against them?—I do not think so.

3911. Are you sure or not? Was not it refused on the ground that the original action which you brought against them was in reference to a certain combination and they have now ceased to use those patent rights and that you cannot proceed against them?—No, I am not aware of that.

3912. Would you be aware of it if an injunction had been refused?—The case is so extremely complicated that I should be sorry to commit myself to any definite statement as to detail.

3913. It is a very important point. You brought an action against the De Forest Company which you won?—Yes.

3914. Was that in reference to general patent rights or was not it in reference to one particular form, what is called combination?—No, the decision was on the American patent and involved the aerial, the earth and the electrical contact.

3915. Is not it within your knowledge that since then, the De Forest Company having ceased to use this particular combination, an injunction was asked for by the Marconi Company recently in the American courts and refused on the ground that the De Forest Company were no longer using this particular patent?—No, that is not within my knowledge.

3916. You say it is not within your knowledge; if

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if it had occurred, would it be within your knowledge?—Yes, presumably it would be.

3917. Are you sure it has not occurred?—I would rather not answer any question on this point without producing the papers which I have.

3918. I dare say; but you have stated all this very freely about the De Forest Company, and I want to know definitely. You are the secretary of this company?—I am not the secretary of the American Company, nor the managing director of the American Company.

3919. They are under your control?—Yes, they are all under the English Company's control; we have the majority of the shares.

3920. We are speaking of what occurred there. Now I want to know whether it is or is not the fact that quite recently the Marconi Company brought an injunction against the De Forest Company which was refused by the American courts?—I think not.

3921. Will you say it is not so?—I say I think not, particularly because I do not think the De Forest Company exists at all.

3922. It does not matter about the De Forest Company. Is it within your knowledge?—No; but that is a very material point.

3923. Will you say it has not occurred?—No, I cannot say it has not occurred.

3924. In fact you do not know anything about it?—I will not say I do not know anything about it. I know we won the action and got the judgment, and we tried to enforce the judgment.

3925. That does not matter whether you tried to enforce it. The point is the legal question?—Enforcing the judgment involves an injunction. You have to get an injunction to restrain the people from the use of the particular apparatus. There is the judgment that such and such arrangements are infringements of the Marconi patents. That is the first point.

3926. This particular combination?—This particular combination which was the combination in suit, obviously. The next point is to recover the damages and the costs. It is possible that an injunction against a company may have failed, as our action was against the De Forest Company. Immediately the action was settled there were transfers to the United Wireless Telegraph Company and half a dozen other companies.

3927. I am not dealing with them or interested in the question whether the De Forest Company was a man of straw or not. I want to know whether you asked for an injunction in the American courts of law which was refused on the ground that they were no longer infringing this particular patent right?—I am not aware of any such thing.

3928. But you do not deny it?—I should be sorry to deny it without reference to the details. I can put in a statement on the subject and I can offer myself for examination on the point subsequently.

3929. You seem to have followed it very closely up to that point?—I should like to point out that the reply I made on this point was

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Mr. Sydney Buxton—continued.

entirely incidental to a question put by Sir Gilbert Parker. I did not raise this question of the De Forest business in the evidence I have given.

3930. You raised it in your examination-in-chief. You said you had brought an action against the De Forest Company?—I did.

3931. Which had placed your rights on an absolutely sound basis in America?—I did not use those words. I said we had brought an action against the De Forest Company in America and the judge had delivered an exceedingly sweeping judgment.

3932. The impression left upon the minds of the Committee was that the present position in America was that the Marconi Company's patent rights were absolutely protected in America?—The impression I intended to leave on the minds of the Committee was that we had brought an action against the De Forest Company in the United States and that an exceedingly sweeping judgment had been delivered. That is what I said. I might have gone on to say that we brought three actions in the United States, and that they have all been successful. There has been an action about the magnetic detector.

3933. But you are not aware of this injunction being refused?—No, although the processes for these things have been almost innumerable.

Sir Gilbert Parker.

3934. Is it the intention of the Marconi Company to test their position in England by an action against one of the existing Companies?—If we could find a substantial undertaking doing serious business I think we probably should proceed. May I venture to answer the question you asked me as to what is the net position in the States?—The net position is that we are still pursuing the De Forest people through their various changes from one Company to another, and that we are pressing on the United States Government the fact that the decision in the De Forest action indicates that their use of wireless telegraphy in the Navy is an infringement of our patent. That is the net position.

Sir Edward Sassoon.

3935. On that point I would like to ask the witness whether the De Forest Company are carrying on their business as formerly?—The De Forest Company is, I think not, *qua* the De Forest Company. They have changed to the United Wireless Telegraph Company. Then there are all sorts of disputes between that company and two or three other companies and the original shareholders as to whether these transfers are good or not. "Transfer" is hardly a good word to use—they have liquidated the company and tried to sell, and there have been half a dozen actions. I really do not carry the particulars in my head.

3936. You cannot say whether their competition with you is less keen now than before the judgment?—I do not think it was keen then. I considered the action a very ill-advised one because

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because they were quite unsubstantial people. We won the action, but we got nothing out of it, and we have not stopped any serious business and have not got our damages or costs.

Sir Gilbert Parker.

3937. Is the company unsubstantial in England as well?—The De Forest Company?

3938. Yes?—I do not think there is a De Forest Company; I quoted the figure of a radiotelegraphic company. They say they own the De Forest patents. I believe £450,000 is the capital, and the cash subscribed £32,450 in £1 shares. That is the return from Somerset House—£450,000 nominal capital and £32,450 subscribed.

3939. Can you roughly say about how many stations they have on this side of the water?—I only know of two; there were two stations put up for the Post Office—Hunstanton across the Wash, and, I believe, they have a station somewhere near the Tyne. I do not know of any others.

Mr. Adkins.

3940. With regard to Sir Robert Hunter's Memorandum, you have quoted two opinions that were handed in to the Committee. One was the joint opinion of Mr. Warmington and Mr. Astbury, was it not?—Yes.

3941. Do you really think that that opinion is relevant to the position which would ensue if the Convention were agreed to by England?—Yes, I think so. Intercommunication would prejudice the patent rights. That is the first step.

3942. What was the other opinion you sent in?—The other opinion was as to the construction of Clause 10 of the Post Office Agreement.

3943. Whose opinion was that?—Mr. Warmington's.

3944. Alone?—Yes, alone. That ought to be in the hands of the Committee.

3945. Yes, it is; I only wanted to be quite clear. Your view is that you are the holders of the controlling patent in all the principal countries of the world?—Yes.

3946. And hitherto you have abstained from trying to enforce that patent because you were only dealing with unimportant rivals?—Yes; though we hardly regard the Telefunken Company as unimportant.

3947. You hold the patent in Germany?—Yes.

3948. Do you consider that your patent in Germany is infringed by the Telefunken?—Yes, I do.

3949. Why have you taken no steps to test the validity of your patent as against them in the German Empire?—The principal uses of wireless telegraphy in the German Empire are with the Government, and as you are of course aware proceedings against Governments and Government departments are very difficult. Those are the principal uses of the Telefunken apparatus in Germany. Apart from that, there are the ships of the Mercantile Marine, and we have the principal liners—we have all the

Mr. Adkins—continued.

Hamburg-American and the North German Lloyd—the majority of the North German Lloyd.

3950. If the Convention were signed, do you anticipate a considerable development of the Telefunken Company's operations?—Yes, I do.

3951. A development of the operations of the company which I understand you to say is infringing your patent?—Yes.

3952. And do you consider that your ability to enforce your patent against them will not be affected by the fact that you have not taken any steps?—I do, most certainly.

3953. You think it will not be affected?—Yes, I do.

3954. I am not talking about the Telefunken only?—Or any other company.

3955. There is one company we have heard of—the Lodge-Muirhead Company—which has been conducting operations between the Andaman Islands and Burma?—Yes.

3956. Have you taken any steps there?—No.

3957. Do you consider that was an infringement of your patent?—I do.

3958. Is the reason that you have not taken proceedings that they are men of straw?—Yes. Relatively it is a very small matter of two connections, compared with 20 or 30 stations of ours in Canada, and many in Newfoundland. Relatively it is a very small matter.

3959. I was not comparing the magnitude of the operations with those of your company; I was only suggesting that it was a *bonâ fide* instance of useful wireless telegraphic work?—Certainly, but you cannot say they are very important competitors, because they establish two connections.

3960. There are competitors undertaking work which, in itself, is important, to your knowledge, in breach of your patents, and you have not taken any steps against them?—I should say, relatively, it is very unimportant.

3961. Then we heard of another company which was conducting wireless telegraphy in the West Indies. Was that the Lodge-Muirhead, too?—Yes.

3962. I suppose the same remark applies to them, that you have taken no steps against them?—No. Of course, those patent actions would have to take place abroad; we should have to pursue those abroad.

3963. Such places as I have mentioned are in the British Empire, and are not subject to the malignant influence of the German authorities?—We should have to take proceedings abroad.

3964. Certainly. Is not there a station in Holland, where you do, as a matter of fact, intercommunicate at the present moment?—Yes; there is no patent law in Holland at all.

3965. Then the only place where you intercommunicate is where there is no patent law?—Yes, so far as I know, except, of course, the distress signals. I think that is the only one.

Mr. Sydney Burton.

3966. I understand these Marconi stations are on Dutch ships?—Yes.

3967. And that under your agreement with the

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the Dutch Government you are bound to intercommunicate?—Yes.

3968. There is no patent law in Holland, and therefore it does not matter, but, supposing one of those ships goes to Germany or America, how does it stand then?—Well, you see, it is a Dutch ship—it is Dutch territory—it is a very complicated question.

3969. Supposing one of these ships, with your apparatus on board, goes to America, is it then prohibited from intercommunication or allowed to intercommunicate?—It does not intercommunicate with any station except the Schevening station, and our stations up to 1908.

3970. Is it prohibited from intercommunicating?—It is prohibited from intercommunicating.

3971. In America?—In America or in any other place.

3972. It is only to intercommunicate in Dutch waters?—It only intercommunicates with the Schevening station in Holland.

3973. Under one clause of the agreement with Holland, is not it provided that if the Resolution of Berlin and the regulations thereunder are accepted by the Dutch Government, all the ships flying the Netherlands flag shall come under that Convention?—Yes.

3974. In that case, will not your Marconi station, under this agreement with the Dutch Government, if it then goes to America, be bound to intercommunicate?—Yes.

3975. If it is within three miles—within the territorial waters of America, it is under American law, is not it?—No, it is still Dutch territory for the purposes of the apparatus on it; but apart from that, we have the option to terminate that agreement in 1908. We can terminate the agreement, if we choose, and not do any intercommunication.

3976. You can terminate the agreement?—We can terminate the agreement in 1908. If the Dutch Government signs the Convention the ship would have to intercommunicate generally. It would still be Dutch territory. But, apart from that—it is a very complicated question, and requires very careful consideration—we reserve the right to terminate the agreement in 1908.

3977. In 1908, when the Convention comes into force, and the Dutch Government then adhere to it, you will terminate the agreement?—We are in a position to do so.

3978. Will you do so?—That is not a point upon which I am prepared to make a statement.

3979. If you do not, then the question of your patent is, according to you, seriously affected?—I am not quite sure of that, because it is still a ship carrying an apparatus which is not patented—a Dutch ship.

3980. Do you say that if you have a Dutch ship on American territory, having intercommunication with other people, that will not affect your patent rights?—No; the form of the argument is this. We bring an action against the De Forest Company in the States for infringement of patent. The De Forest Company replies: "You have intercommunicated from a Dutch ship with our stations in American territory. Our defence is, in respect of the American patent, 'leave and license in effect.'" There is no such thing as

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acquiescence, I believe, but that is the defence—leave and license. It seems to me our reply in that case would be: "We have given no leave and license in effect to the De Forest Company at that American station by communicating with non-patented apparatus, apparatus on a Dutch ship." It seems to me that would be the case. I admit the matter is a complicated one. We are free to terminate the agreement. I am not yet sure what our position would be if we went on with the agreement.

3981. You admit it does very seriously affect this question of patent rights, to which you attach so much importance?—No, I do not say it seriously affects it.

3982. Well, affects it?—No, it is not determined.

3983. I thought you said so?—I do not think it would. I have not gone into it very closely.

3984. At all events, it may affect it?—It may affect it, yes; and if it does affect it, we have a right to terminate the agreement.

Mr. Adkins.

3985. I have only one other question on this opinion of Mr. Warmington's and Mr. Astbury's, which I will put to you. I suppose this was the whole of the question put: "Would the Marconi Company probably fail, or, at any rate, be seriously prejudiced, in an action brought by it for infringement of its British patents against users of infringing apparatus and stations, if such users were able to show that the company had itself, otherwise than in cases of emergency—e.g., ships in distress, made a practice of communicating by wireless telegraphy with ships or stations fitted with such infringing apparatus, or had knowingly allowed its licensees to do so." That was the whole of the question. What was the date of that opinion—August 23rd, 1906?—One was in April, and the other was in August, 1906. That was in April.

3986. Why was not that clause put into the question: "Under compulsion of International law, or under compulsion of International Convention"?—It was not put in, but it does not affect it, I submit.

3987. That is your point—that it does not affect it?—Yes, it has been considered.

3988. At any rate, that is not in the question?—There is no true compulsion. We can hold our patents inviolate and not work them at all.

3989. I only wish to get your point of view. In your view the insertion of that proviso was not necessary, and does not invalidate or modify the answer. That is your view?—Yes; the question of compulsion has been specifically considered by Mr. Warmington.

Sir Edward Sassoon.

3990. I wish to know your view of the interchangeability of this and the continuous movement system?—The persistent wave apparatus and the damped or partially damped apparatus will not intercommunicate unless you sacrifice the essential features of one or the other. Sir William

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William Preece has told the Committee that they can easily be made to intercommunicate. If you make the persistent wave apparatus a damped wave it will communicate with a damped wave apparatus, or if you make a damped wave apparatus a persistent wave it will communicate with a persistent wave, but the persistent will not communicate with the damped.

3991. Captain Bethell gave a view exactly opposite to what you are giving?—I do not think Captain Bethell's knowledge of the technical question is worthy of consideration.

Mr. Sydney Buxton.

3992. Are you an expert yourself?—Yes, I am a member of the Institute of Electrical Engineers, and follow the profession of an electrical engineer.

Sir Edward Sassoon.

3993. You stated in your examination-in-chief that you considered the scientific development would be materially hindered by compulsory intercommunication?—Yes.

3994. Does that apply to an advance in experiments in your own services, or does it apply to general improvements in other services. Would it hinder your own improvements, or would it hinder improvements of other systems?—It would generally hinder improvement. Standardisation and application of scientific development seem to me to be quite incompatible.

3995. On the other hand, if you take a layman's point of view it seems rather a difficult thing to understand how if you prevent other systems from showing what they are capable of doing that can enable them to make a scientific development of their service?—Of course, they must have an area—if they are going to improve they must have an area of application, that is very clear; but, nevertheless, the public interest often necessitates granting to one organisation the control of a certain service. Of course, the whole telegraph service of this country is in the hands of the Government.

3996. With the provision of special opportunities for the display of what they are able to do, do you think it is likely that the opportunities for scientific development of other systems than your own are likely to be non-existent?—The Convention means standardisation, and standardisation is incompatible with the application of scientific improvements. The regulations have been drawn up by people with a very imperfect knowledge of the subject from a scientific and commercial standpoint. The idea seems to be to make the system fit the Convention and not the Convention fit the system. That is what Sir William Preece said. He was asked if he did not think it would hamper scientific development, and he said if the system did not fit the Convention so much the worse for the system. That is typical of the bureaucratic idea of solving everything by regulations.

3997. That means you must afford opportunities to systems other than your own to come forward in the light of day. If you prevent intercommunication you do not afford those oppor-

Sir Edward Sassoon—continued.

tunities?—Yes, in certain areas. If the Telefunken Company wishes to develop its system it can do so in Germany.

3998. It would not have the same range or area?—No; but there is no particular reason why they should develop their system at the expense of our organisation.

3999. Then you talk about possible dislocation of your service. Do you base that anticipation upon actual facts and experience?—We know this from analogous services and from our own experience—that competition and common use are absolutely incompatible. When two ships come simultaneously within range of the same coast station either of them can prevent the other from sending any messages at all—or from sending any coherent messages. As there are no physical means of excluding messages from a ship whose budget of messages the coast station does not wish to take, you must eliminate the competition. We have found that competition between ships run by our different companies does militate against a satisfactory service. We have eliminated that competition by introducing the bonus system, and, of course, it is not nearly so great as it would be in the case of the Convention. In the Convention there will be a great many different people competing, and they would not be operators of affiliated companies as ours are—they would be employed by competitors.

Mr. Gwynn.

4000. When you say there is no physical means of excluding a ship's message, you mean there is no physical means of excluding a message if both ships are communicating on the same wave length and with the same amplitude?—Yes, and they must communicate on the same wave length under the Convention.

Sir Edward Sassoon.

4001. Do you consider the trouble which arises on the Malin Head with Lloyd's and the Allan Company's steamers furnishes an object lesson?—Yes, it points to this, that even if there is one system, having one authority at the coast station and another authority at the ship's station is liable to cause trouble. The point made by the Allan Line to us in the correspondence which was put in, was that the ship worked very well indeed at the Canadian station, and it worked very well indeed at Liverpool; therefore they concluded it was not the apparatus on the ship which was wrong. They complained repeatedly of the working at Malin Head. Reuter's also complained because they were doing a news service to the ship for which they were entitled to payment, and they complained they could not collect their payment from the Allan Line. Lloyd's were working at Malin Head, and we were working on the ship and there was a certain amount of difficulty in settling the responsibility for the mistakes. Lloyd's said one thing, and we said another, and the end of it has been that we work the Malin Head station ourselves, and since then there has been

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been no difficulty. Perhaps if Lloyd's had worked the ship station there would also have been no difficulty. That clearly shows that the fact of one person working at one end and another at another presents considerable difficulty. I gave a most excellent example of that in the service between London and Amsterdam over the Post Office cables. (1378).

4002. So that on the whole it is not your view that when the stipulations of the Convention come into force these union troubles may be eliminated?—No, I am quite sure they will not. I am quite sure if there is an extensive service based upon the provisions of the Convention there will be confusion. It must be so. It is not really an arguable question, because there is no service in the world carried on upon that principle. Telegraphs, electric lighting, traction, telephone companies and railway companies—all those businesses are administered on the principle of centralised control, and are not carried on by co-operation of the users.

Mr. Sydney Buxton.

4003. I asked you in your examination when you were here before if you were aware of an agreement by the Marconi Company on the River Plate, over which you have a complaint with the Argentine Republic. Have you refreshed your memory about that?—I told the Chairman before the sitting this morning that I was awaiting information with regard to that and certain other matters.

4004. Waiting for information?—Yes.

4005. Do you dispute that there is an agreement by your company on the River Plate dated 31st August, 1906, with the Argentine Government?—I have not it before me, but if you are reading from it, presumably there is one.

4006. Are you aware that under that agreement between the Marconi Company and the Argentine Government they must erect a station for ships on the Argentine soil complying in all respects with the conditions of the Government, and that they will be bound by rules and regulations imposed by the Argentine Government?—I am waiting for information. I have seen the statement put in by the Post Office people. I have not read it, but I was told of it, and I am waiting for information with regard to it.

4007. Assuming what I have quoted is correct, that there is this agreement of the 31st August, 1906, between the Marconi Company and the Argentine Government, under which they are bound to comply with all the regulations issued by the Argentine Government, then supposing the Argentine Government adhere to the Convention, how far will it affect the patent rights of the company?—So far as I know—I wish to confirm these things—we have a concession from the Argentine Government, or, rather, our Argentine Company has a concession from the Argentine Government. Supposing the Argentine Government imposes conditions which we think it is undesirable to accept, we can cease to work under the concession. That is the whole position. Presumably the case is paralleled by the Netherlands agreement, which has been quoted. If we do not like to accept intercom-

Mr. Sydney Buxton—continued.

munication in 1908 we can cancel the agreement.

4008. I understand you have accepted any regulations and laws which may be imposed on the subject in future—the company have agreed to that?—We have a concession from the Argentine Government, and if we do not choose to work under the terms of that concession the thing is at an end.

4009. The company are bound to comply with the laws and regulations which may be imposed in future?—If it continues to work.

4010. Supposing you find that the Argentine Government adhere to the Convention—they are one of the signatories—what would be your position then?—In 1908 if we do not accept intercommunication we should have to stop working.

4011. That you are clear about in your mind?—I am not clear—

4012. I am assuming the facts?—I am not prepared to accept the fact that those are the terms of our concession.

4013. I am for the moment assuming that?—Assuming those are the terms—that under that concession we have to accept any law which is imposed by the Argentine Government, then in 1908 if we do not accept the terms of the Convention we should cease to work.

4014. You would cease to work in the Argentine?—Yes; for this particular purpose, of course.

4015. As regards the question of Clause 10 to which you have referred, did I understand you to say that you had some hand in drawing it up. I mean the clause to which you referred?—I negotiated the contract with the Post Office.

4016. How is it that in that clause there are two specific provisos at the end which govern the whole of the clause? One is in reference to the rate which has to be allocated, and another is that they shall not be bound to give any information with regard to the apparatus. How was it if the question of the patent rights govern the whole of the clause that that was not put in as one of the provisos instead of merely being interpolated in the middle of one of the paragraphs?—This is a legal question, and as I said before, I am not a lawyer. Also the matter may be fought in the courts. Subject to that, and without prejudice also to any future action, it seems to me that it is very much stronger where it is than if it had been an alternative to those other two clauses. That is my view. It supports our contention. I say those words govern the whole clause.

4017. When this agreement was negotiated you had it in your mind at that time that those words put in like this, "without prejudice to patent rights," prevent the Government from adhering to the Convention?—I am not going to discuss anything prior to that contract at all. There is the contract, and there are the opinions on it.

4018. It is very material. I am asking you as one of the negotiators of this agreement what you had in your mind when you negotiated it, and I am entitled to ask it. Had you in your mind those words "without prejudice to patent rights" would prevent the Government from adhering

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hering to a Convention based on the Berlin programme?—I will say this, and I will not say any more with deference, because the matter may come before the courts. I told the Post Office, I told Sir Robert Hunter, not once or twice, and very emphatically, and with examples, that in our opinion intercommunication would prejudice the patent rights. I fancy at that time he did not quite share that view. He looked upon it as a layman's view, and probably did not attach much importance to the support I gave to it. He thought it nonsense, I think.

4019. Then you agreed to this Clause 10, believing all the time that it was ineffective?—I am not going to say that, and I am not going to say any more than what I have just said if you will excuse me. There is the clause and there are the opinions on it, and I certainly told the Post Office (presumably Mr. Babington Smith and Sir Robert Hunter will bear that out) that intercommunication would prejudice patent rights.

4020. That is to say that in your opinion at that time these words governed the whole of the clause, and, therefore, the clause would be absolutely non-effective?—I do not wish to answer that.

4021. Is there any other inference to be drawn from what you say?—I am not prepared to say whether another inference can or cannot be drawn. There is the agreement, there are the opinions, and I will go so far as to say that I did tell the Post Office; I told Sir Robert Hunter and Mr. Babington Smith that it would prejudice the patent rights. I suggest they did not think that was the case.

4022. Therefore the whole clause would be

Mr. Sydney Buxton—continued.

ineffective. I wish to put to you one question about the traffic which you quoted. You quoted some figures last time you were here with reference to the traffic with the Marconi Company. I want to ask you whether that traffic included the whole of the messages. I understand those to be the whole of the messages sent?—The whole system.

4023. What proportion of those messages were messages for which payment was made to the company?—I cannot say offhand.

4024. Do those messages include also the messages from one operator to another, and so on?—No, I think not. As far as my recollection serves me, the return is based upon the cash receipts, which is a definite figure.

4025. You are not sure of that?—So far as I recollect, it is 6d. a word, and so on.

4026. 6d. a word on one and a quarter million messages?—Exclusive of the land charges, I suppose, of course.

4027. Do your balance-sheets show that?—Yes. I do not know whether it is allocated in all cases. That is the whole Marconi organisation—Canadian, American, International, French, and Belgian companies—all those companies.

4028. You said in your examination, and also in reply to Sir Edward Sassoon, that, in your opinion, the question of the confusion which you allege would arise, if the Convention was adopted was not arguable?—That is so.

4029. That is to say, you are quite clear it will cause confusion?—Yes.

4030. And therefore you dissent absolutely from what was said by the Admiralty delegates?—Absolutely.

Mr. CHARLES BRIGHT, F.R.S.E., called in; and Examined.

Chairman.

4031. I understand you are a Fellow of the Royal Society of Edinburgh, an Associate Member of the Institution of Civil Engineers, and a Member of the Institution of Electrical Engineers?—Yes, that is so.

4032. Can you tell the Committee what your views are with regard to the ratification of the Convention?—Certainly. Radiotelegraphy having proved itself of service to the nation for maritime purposes, and it having been recognised as a suitable subject for national legislation, it appears to me only reasonable that a general ship-to-shore communication by radiotelegraphy throughout the world should be made a subject of international control; and, as we speak to foreign lands by cable, why not to foreign ships by radiotelegraphy, or from our ships to foreign lands? It is far more natural that other countries should at once take up "wireless" telegraphy for ship-to-shore work than that they should have gone in for making their own cables, having so few colonies, to speak of. The question about length

Chairman—continued.

of cable made since the Marconi came into existence you do not wish to know anything about?

4033. No?—It is nearly five times as much as during the corresponding period before; and, as there has been a good deal said about cables being rendered useless by wireless telegraphy, I thought it might have been of some interest. However, I will leave that, and will go on to say that what are termed Free Traders are usually in favour of anything which tends towards dealing with as many countries as possible; and, for my part, humane and general maritime considerations serve as sufficient reasons for universal radiotelegraphic communication between ship and shore. In the instance of etheric telegraphy within our own shores or territorial waters, if the public had been still allowed to erect stations where they pleased, I venture to think that a considerable state of disorder would probably have ensued by now. So, similarly, in the case of international communication between ships and foreign shores, but for international control.

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It appears that between the first Radiotelegraphic Conference of 1903 and that of last year (owing to the increasing use of wireless telegraphy in an International sense) the Government Offices concerned—including the Colonial Office, who put itself into communication with our various Colonies on the subject—wisely considered the principle of free intercommunication between different systems, that being one of the main proposals at the former Conference, and a decision was arrived at favourable to the proposal in a general way, subject to certain strategic conditions. It should be remembered, I think, that the International radiotelegraphic service will form a companion, so to speak, of the International Wire Telegraph Service, which would certainly never have become effective but for International control. Telegraph history shows the importance of International control. At one time different countries had different regulations. There was no provision for co-operation or through-working, and the private telegraph companies boycotted each other by means of "blocking rates." The meetings of the International Telegraph Union have afforded facilities for exercising influence on the various companies on the score of landing rights, concessions, and subsidies being required from the various Governments by the said companies; and the Conventions established uniformity of regulations. The Governments worked together in friendly co-operation and the cable companies (which retained the ocean cables) were brought into line so as to work as units in the general International telegraph system. To some extent the main lines of communication are in the hands of companies allied to each other; but the International Convention (where it was applied to cable companies) has had an excellent effect in co-ordinating the whole network of International telegraphs, and has brought about through-working between organisations in close rivalry with each other. Wire telegraphy has been developed on the lines of the Convention introduced at the right moment for a number of years—why should not wireless telegraphy? Telegraph rates have been, in various instances, kept up at a moderate level through Government pressure, as well as through healthy competition and attention by the Conference to terminal and transit rates on Government land lines. In other instances where certain companies have acquired a practical monopoly it has not always been easy to secure reasonable reductions of tariff. In the case of the Wireless Convention, however, this difficulty has been solved in advance under Article X. of the Convention and Article XII. of the Regulations. The rates (whether for the coast or for the ship station) must in every case be approved by the Government of the country concerned—assuming that it is a party to the Convention; and it is expressly stated that these rates must never exceed a certain reasonable maximum, thereby providing against anything like extortionate rates, such as might conceivably obtain from a purely shareholder's point of view. In early telegraph days it was soon found impossible to carry on the traffic without International regulations such as

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Chairman—continued.

insure delivery. Then, again, uniform regulations for a general basis of word-counting was soon found to be necessary, and the same must naturally apply to aerograms. Indeed, uniformity of regulations is absolutely essential for International telegraphy of any sort, and this can only be arrived at by a union of the various countries concerned. Similarly, where should we be in postal matters but for our Postal Union? In fact, if once a decision is arrived at in favour of communicating with people in foreign lands—whether by letter, or telegraph of any sort—the necessity for International control for the purposes of uniform regulations appears to me to be obvious. This International administration is as much a natural sequence to International radiotelegraphy as it is in the case of wire telegraphy; indeed, in any open radiation system it would seem clear that control is more essential than in the case where the waves are strictly confined from point to point and therefore not a subject of possible interruption. Yet, though there was a certain amount of opposition at first to intercommunication, between some of the companies—enough to prove the necessity for International administration—there was certainly not the same sort of opposition to the first wire Telegraph Union and Convention, though all the cables were British and much more distinctly our natural heritage. The normal uses of wireless telegraphy will be in everything that concerns navigation, *i.e.*, in helping to save life and property at sea, besides assisting our general commerce and shipping trade throughout the world in announcing the movements of vessels, particulars as to cargo and passengers and their general requirements, with greater fullness and exactitude than is possible by flag signalling. Then, again, it is only by a system of universal wireless telegraphy that the public would be able to communicate to any ship fitted with any wireless telegraph apparatus; or if on board a ship so fitted, with any general intercommunicating "wireless" station. The same applies to the supply of news on board ship from any such shore station. Ours, being the largest mercantile marine, it becomes of special importance to this country, and to Lloyd's Corporation, that we should develop radiotelegraphy for Maritime purposes by regulations that will obviate the present position of one wireless Company refusing to intercommunicate with any ship or shore station fitted with apparatus other than its own; and it is clearly most desirable for us that as many ships and shores as possible should be fitted with a wireless installation—in the latter case, preferably, of course, on *British* shores.

4034. Do you consider that ship to ship communication would be for the public benefit for the purposes of general Maritime navigation and safety?—Yes, certainly; but as in the case of shore to shore communication there would require to be a limitation as regards power, if we are to avoid confusion with neighbouring stations, and, therefore, the ranges would be limited. To return to my previous point, assuming, as I do, that the Convention will be ratified by most of the other important Powers whether we sign it or not, by not joining the Convention,

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ships fitted with the Marconi apparatus will have to replace that apparatus by another belonging to a Company that will intercommunicate with other systems, or else will have to forego all ideas of communicating with shore stations belonging to countries adhering to the Convention and *vice versa*. This would not apply, of course, if, when the Convention is actually ratified, the Marconi Company withdraws from its policy of isolation. This, indeed, they have already done under enforced agreements as regards communicating with the Telefunken (Dutch) Station at Scheveningen, and as regards its own (Marconi) Argentine Republic Stations communicating with ships fitted with any other wireless apparatus. It should, I think, be remembered that without an International Convention of some kind there would be no security that any message signalled from ship to shore would be transmitted to its destination on the telegraph system of the country concerned. Until the International Telegraph Union was established in 1865 all messages crossing a frontier were examined even in times of peace. [Information will be found in my book which you have before you on all points connected with that subject]. The Colonial Shipping Conference has just passed a resolution in favour of the provision on board ships trading with Australasia for wireless telegraphy apparatus; and a Committee of the New York Board of Trade and Transportation have also within the last few days urged for a compulsory system of small vessels equipped with radiotelegraphs at certain points along the United States coast. A copy of each of these resolutions is available if required. I would venture to point out that in this, and similar instances concerning ourselves, it would be essential for the apparatus to be easily workable by the ship's crew; and that it would be quite out of the question to adopt any system whose organisers insisted on working their own apparatus by means of a special staff and telegraph office on board. When I say the ship's crew that is a wide term, but, at any rate, some of the ship's staff. This feature in Mr. Cuthbert Hall's evidence brings me back to the refusal of the Marconi Company to intercommunicate with other systems. In the first place, it would seem that we are not in a position, even if we desired, to press for general ship to shore communication to be put into the hands of any one private organisation; in other words, it is not a suitable alternative for International control in a matter that concerns other nations as well as our own. Remembering the number of stations, other than Marconi stations, on foreign shores, it is, in my opinion, absurd to assume that if we are to have International ship to shore communication, it can be by the Marconi system alone; for other countries would probably not agree either to abandon their own apparatus or enter into any arrangement binding themselves—more or less indefinitely—to a system which will not intercommunicate with any other system whether on ship or shore; and I fancy the same would apply to our Colonies as well as to shipping companies in general.

4035-6. As regards the license for experimental stations, will you state your opinion?—It ap-

Chairman—continued.

pears to me to be too much to expect that the Government is to refrain from ratifying the Convention, because any individual inventor (of whatever public prestige), says by doing so the experiments he wishes to conduct will be interfered with, or taken advantage of, by rivals. Licences are issued for experimental stations, and these have had to serve the purpose for others.

4037. They will embarrass it?—Yes. That is their view; but wire telegraphists, electricians, and instrument makers have to manage their experiments and inventions without interfering with cable traffic, besides running the chance of their inventions being examined; so surely radio-telegraphic electricians can do likewise without insisting on a public service other than their own being disallowed, seeing that a monopoly for etheric telegraphy belongs to no one, unless established for a patent in a court of law—any more than Morse could have claimed a monopoly for land telegraphy in general.

4038. Do you consider that legislation is necessary?—Most certainly; I think suitable legislation is highly desirable before an art gets beyond control, if only as serving as a guide as to requirements; and surely it is really fairer to those generally practising that art, or putting money into it. Standardisation serves as some sort of guidance to inventors, as showing them definitely what is required, whilst leaving them to attain those requirements as they think best. If we waited till it was universally agreed that the art was out of its infancy, we might have to wait interminably. Meantime much trouble and confusion might ensue, the art getting out of hand altogether, and suitable standardisation by experienced, but disinterested, Government officials be fraught with much difficulty.

4039. In the event of the Convention not being ratified, what do you say?—In the event of our not ratifying the Convention, and therefore not opening up our stations for intercommunication, foreign stations would be pretty certainly planted quite close to important trading route positions close to our territory, whereby we should not only lose the traffic that would have, otherwise, naturally accrued to us, but our non-intercommunicating stations might be seriously interfered with by the working of foreign ships with foreign stations, as well as by the proximity of their (foreign) stations to ours. Further, by entering at the start, we shall have secured our own terms, besides influencing the trend of events, instead of on the terms of other countries. We shall also have thereby avoided a position of combined antagonism. If by chance intercommunication, for physical reasons was found to be difficult—as insisted on by Mr. Marconi, but denied by Mr. Cuthbert Hall—the Convention as it stands could, of course, be dropped; and we should then, in any case, have taken a courteous and diplomatic course—instead of the reverse—in agreeing to adopt on trial the Convention universally desired by other countries.

4040. Do you consider the Convention will be ratified by other Powers, whether we ratify it or not?—Distinctly. It should be remembered that

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that we cannot, in any event, render this International Convention impossible; it is practically certain that each of the leading Powers will sign. All we can do by holding aloof is to lose certain benefits and suffer from its operation at the hands of others. Moreover, as in the Wire Telegraph Union, any country is open to withdraw from the Convention at a year's notice if found desirable. If we do not ratify it seems clear that certain clauses introduced at our instigation are likely to be changed. Some have suggested holding back and seeing how things work; but surely to start guiding and controlling a business in its infancy is better than to allow it to get more or less established on certain lines that may be contrary to our interests. It does not seem to me that the mere fact that the proposal first came from Germany, or that the German Emperor may possibly have been annoyed on a certain occasion, should prevent our considering the various proposals entirely on their merits from our point of view.

4041. Have you any remarks to make with regard to the proposed regulations?—I have studied them in a general way; and they appear to me admirably to meet all requirements so far as we can see them at present. The articles, in so far as may be, seem to be in suitable conformity with those of the Convention for controlling ordinary *wire* telegraphy. General uniformity in rules of working is obviously essential, and it is clear that no country can, alone, lay down rules for stations in another country, and the same also applies as regards the methods of collecting charges and settling accounts. So, again, with every other incident of necessary administration to guard against general and technical confusion, and to secure speedy publication of information on uniformly understood lines through all countries. It is, of course, possible that the Marconi Company could have—and possibly have already—drawn up similar regulations; but it is not easy to see how a single company of any one nationality could have actually administered an International ship to shore system in all these respects. Moreover, recognising the desirability of ship to shore communication being International in character, and in view of the fact that it is out of the question, even if it were desirable, to insist upon other countries using the Marconi system and no other, International regulations are, to my mind, the only obvious and natural course—regulations, in fact, following the precedent of wire telegraphy, but a good deal more necessary. The clause for exempted stations which the British delegates insisted on meets entirely, to my mind, all requirements in the nature of experiment and development with any particular system or systems at any time. It also provides for the possibility of general intercommunication not proving satisfactory at any time, and for retaining a separate organised system of wireless telegraphy in our own hands. The Marconi Company have stated that intercommunication would be practically impossible. It has been put sometimes in one way and sometimes in another, but that has been clearly stated.

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Mr. Gwynn.

4042. Do you mean it has been stated in evidence here?—Yes, that intercommunication between the Marconi system and another system is physically impossible.

4043. When has that been stated in evidence before us?—It has been stated by Mr. Marconi, but not by Mr. Cuthbert Hall, who, on the other hand, says general intercommunication would be impossible for organisation reasons only.

Chairman.

4044. I think you alluded to the difficulty which Mr. Cuthbert Hall or Mr. Marconi said there would be in making an organised spark system of communication?—Yes, Mr. Cuthbert Hall says intercommunication would be impossible for reasons of organisation. But I understood Mr. Marconi to say distinctly that there was a physical impossibility of his intermittent spark system working with any more or less persistent wave system.

4045. Physical difficulties?—Yes.

Mr. Gwynn.

4046. Physical difficulties of intercommunication between systems of different kinds?—Yes, certainly.

4047. I understood you to say just now that Mr. Marconi had stated his system was physically incapable of intercommunicating with other systems?—The Marconi Company certainly stated at one time that their system could not be interfered with by other systems, yet now they complain that it will be. To return to my point, as I have just remarked, the clause for exempted stations also provides for the possibility of general intercommunication not proving satisfactory at any time, and for retaining a separate organised system of wireless telegraphy in our own hands to meet the case of confusion and dislocation by congestion of stations and traffic at important positions. As Captain Bethell has stated, this latter may some day become such a small feature as not to require provision for. That is in the way of exempted stations. These exempted stations (together with our naval stations) will, moreover, tend to serve in the same way as the All-British Pacific Cable or other important cable routes—*i.e.*, for our own sole use as an additional string to our bow for emergency; and if the Marconi Company still do not wish to intercommunicate, their existing stations, or a certain proportion of them, could be suitably exempted.

Chairman.

4048. As regards the evidence of the strategic aspect of the subject, the Committee have already received full evidence on that head from the experts concerned, and, therefore, I do not think it necessary for you to go into that now?—As one who has devoted considerable attention to the strategic aspect of telegraphy, I should like to point out that until I was satisfied that, to my mind, our strategic position was not being affected, I was unprepared to in any way back up the Convention.

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Chairman—continued.

4049. I think everything else which you have put on that point in your *precis* has been given by the expert witnesses concerned, and therefore it is almost redundant. Have you anything to say upon the question of monopoly?—Yes. From the public standpoint, the sphere of wireless telegraphy has, so far, in this country and on English vessels, been to a great extent limited to a certain commercial interest. I do not say that there is any blame attached to anyone for this; on the contrary, material credit is due to the enterprise of those who erected stations before the Act of 1904 came into force. On the other hand, I contend that if others are now ready to come forward, they should have every chance—if only in the public interest. I should say, moreover, that if the Marconi Company adhere to their present policy, the Post Office would, in any case, grant licences to other companies for stations on our coasts. The fact that other licences have not been granted, except in the case of the Marconi station at Clifden, may be due to the circumstance that really efficient selectivity has not yet been attained—by the “first in the field,” at any rate. In view of the rapid march of invention, especially where things electrical are concerned, anything like a lasting monopoly is, in my opinion, contrary to the interest of the country and of scientific development throughout the world. It would also be prejudicial to British inventors and shipowners. Apart from other objections, we may find some day that we are landed with something, as we have been before now, that is altogether antiquated and behind what is obtained elsewhere under stress of competition, for it is monopoly that tends more than anything to check invention. Then, again, a lengthy monopoly usually fosters an inefficient, or, at any rate, a costly service; and it should, I think, be recognised that free competition is more likely to keep the rates at a moderate figure than if we are under the ægis of a monopoly. Thus, to my mind, to tie ourselves down to any one particular radiotelegraphic inventor system or commercial concern for any material period, would be highly undesirable.

4050. From the point of view of reducing the price of apparatus what have you to say?—From the point of view of reducing the price of the apparatus for ships of all descriptions, I should certainly say that to allow a monopoly to grow up would be a great mistake. Free competition, on the other hand, would encourage general development of the art, and, perhaps, a far cheaper apparatus would thus be arrived at. Then, again, in the actual circumstances, any attempt on the part of this country at securing a monopoly of radiotelegraphy throughout the world would, in my opinion, be bound to meet with disaster. No doubt the idea of free and open competition is annoying from the Marconi shareholders' point of view; but these people were no more justified in anticipating immunity from competition than a manufacturer and layer of cables would have been in anticipating immunity from competition over his business. Though my evidence was in the hands of the Chairman before Sir William Preece gave his evidence, I should

Chairman—continued.

like to say that I can confirm his (Sir William's) impression that Mr. Cuthbert Hall objected to stations being licensed to other companies, and did his best—not perhaps unnaturally—to obtain exclusive licenses from the Post Office. But whether this be so or not is really immaterial, for the fact remains that the Marconi Company, except in two instances under compulsion, do not allow ships fitted with their own apparatus to communicate with stations other than their own, neither will they allow their own stations to respond to ships fitted with a rival apparatus. Thus, like Sir William Preece, I certainly contend that the Marconi Company have shown clearly by their actions that they have done their utmost to obtain a monopoly. They have, indeed, claimed it as a right, if only by refusal to intercommunicate. This is presumably with a view to forcing their own system on to every ship and possible shore station, knowing, as they do, that the reason many ships, including foreign vessels, have adopted their (Marconi) system, is because this is the system which is installed at practically all the “wireless” stations in the English Channel. What strikes me, however, as the most remarkable feature over all this matter is the fact that at one time, in return for certain concessions from the Post Office, the Marconi Company undertook in Clause 10 of their agreement with the Post Office, to intercommunicate with other systems, if the Government decided to join the Convention; yet, later on, having secured the concessions they asked for, and the Government having decided on joining the Convention, they (the Marconi Company) not only go back on their word as regards intercommunication, but start a Press campaign against the Convention on the lines of party politics.

4051. Do you believe that by free intercommunication there will be a tendency to reduce the charges?—Yes, I do. A most striking instance of the benefit to the general public of “equality of opportunity” being granted to all comers is, perhaps, that of the Atlantic cables between this country and the United States of America and Canada. There are at the moment 12 of these working, and all of them charge the same 1s. a word tariff, gradually reduced from an original £1 a word (minimum £20 for 20 words in first instance), charged by the Anglo-American Telegraph Company. There are 16 in all, but the rest land at this end, in foreign countries. I do not know whether the details of it are wanted, but the Commercial Cable Company started with 1s. 8d. tariff in 1884; in 1886 the “Pool” Companies lowered their rates to 6d. a word; the “Commercial” then reduced theirs to 1s.; and after 18 months, the “Pool” adjusted their rates to the same figure—1s. a word. Largely owing to the moderate Atlantic rates by competition we are able to telegraph to Vancouver at 1s. 6d. a word. Yet, according to the “First in the field” theory, the “Anglo” Company might have claimed—and our Government should have granted—landing rights to them alone, the result being that the general public would have been denied the useful effects of healthy competition as here illustrated.

4052. Have

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[Continued.]

Chairman—continued.

4052. Have you anything to say on the subject of organisation with regard to commercial messages, and so forth?—Yes. The Marconi Company has been frequently referred to as though it were the only *British* company concerned with radiotelegraphy; but, as a matter of fact, it and its associated company are less British in character than, at any rate, two others. The other British companies, such as the Lodge-Muirhead and the Amalgamated Radiotelegraphic Company, have not as yet had much chance of providing for the transmission and receipt of commercial messages, since the Wireless Telegraph Act of 1904 came into force. This, in my opinion, is mainly a question of capital; and it would not have been feasible for them to go to the public for capital for this purpose under the present circumstances. In the United States, on the other hand, the two principal American companies are undoubtedly doing a substantial business, and one of them, at least, is following in the steps of Mr. Marconi in aiming at spanning the Atlantic Ocean. It is interesting to note, by the way, that whilst Mr. Cuthbert Hall declares that no other company has any organisation whatever, Mr. Marconi admits that they have. The Marconi Company make much of the fact that theirs is the only concern with a complete commercial organisation; and, though this is undoubtedly correct as regards this country, it is scarcely surprising under the circumstances. As a matter of fact, we do not know much about this superior organisation, except from what the Marconi Company tell us themselves. One cannot help feeling, however, that organisation of the description boasted over would not be very difficult of attainment when once the obstacles in the way were removed. I observe that the Marconi Company pride themselves over a .4 per cent. error. As, however, this would imply that the system is, if anything, more accurate and reliable than that of cables, it would be well to remember that in the cable service errors are arrived at merely from the difference between the sent and received message in transmission, and not from a comparison after the message has been sent so many times that it is nearly worn out. I do not think that the fact that thousands of repeated words are sent in this way stands as much evidence of the merits of a system. The true test is surely the *rate* at which words are correctly received *without repetitions*. The errors in cables are, as a matter of fact, mostly errors in writing rather than errors in instrument transmission or reception. Then, again, the bonus system, in its particular application, does not suggest itself to me a very pleasing form of organisation. Surely the punishment of dismissal is a recognised and sufficient detriment for all ill-doing, and is preferable to anything in the shape of a bribe to anyone to carry out his duties properly.

Mr. Gwynn.

4053. What do you mean by "bribe"?—I say *anything* in the shape of a bribe.

4054. Why do you use the word "bribe" instead of the word "reward," which is the natural

Mr. Gwynn—continued.

antithesis to punishment?—If you object to the expression "anything in the shape of a bribe," I am quite willing to substitute the term "reward"; but I do not consider you should pay anyone a sum of money, beyond what he ordinarily receives, for doing his duty.

4055. It seemed to me unfair to use that word. "Bonus" suggests the idea adequately to my mind?—Very well; but if you give anyone an extra sum for doing what he ought to do, it would seem to me to come within the terms "anything in the shape of a bribe"; and, as I said before, I do not like the idea of bonuses in this sense. However, I did not, of course, mean bribery in the sense of something which was not known. I would wish to repudiate any suggestion of that kind. To return to my point. One of the main arguments that has been brought up by the Marconi Company is that wireless telegraphy must be virtually in the hands of one company organisation—theirs, of course. In evidence of this, they cite the case of wire telegraphs; but the citation is a little unhappy, for, as a matter of fact, wire telegraphs, whether aerial or submarine, are by no means in the hands of one organisation. As regards cables, the figures are 206,144 nautical miles of cable under various companies, and 44,988 under various Governments. The various Government and company cable systems have been working together successfully for the last 35 years, and will no doubt continue to do so, without central control other than International. It is true that cable working companies are not at the disadvantage of dealing with something—the ether—which does not belong to them; but cable laying or repairing operations are a closer analogy to ship to shore radiotelegraphy than the subsequent working of the cable. In cable operations there is, indeed, much the same chance of three separate parties trying to signal to each other at the same time—some of them in the employ of the contractors, and some, perhaps, in the employ of the company to whom the cable is to be handed over in a proper state. In such cases the staff at the two shore stations are often fairly tired of watching for the ship—perhaps many days or weeks—and each are anxious to be relieved as speedily as possible of further watching. Consequently each station end endeavours to get in touch with the ship. Here the ship is in command; and, after the cable has been recovered and cut, signals up each in turn, tells one to "stand by," till called up again—possibly not till some days or weeks hence—then speaks to the other, tells it to "stand by," and after buoying the former end, lays new cable to the latter. A difference in the two cases is, of course, that in cable work the ship is in command: whereas in ship to shore radiotelegraphy the shore is, and gives corresponding sort of orders when it is being signalled to by more than one ship at a time. In cable work this scope for confusion, by two or more people trying to speak to each other at the same time, has been successfully dealt with for the last 40 years; and it, therefore, seems reasonable to suppose that with efficient regulations such as have been drawn up there is no reason

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[Continued.]

Mr. Gwynn—continued.

reason why similar success should not be achieved in ship to shore radiotelegraphy. Lest there should be any question on the point, I would call your attention, again, to the fact that in cable working it is impossible for anyone to interrupt the signals from the other end until the other end has finished signalling; and this objection corresponds to the objection of two ships trying to speak with shore at the same time. Both objections can, however, be dealt with by suitable regulations, and by it being understood who is in command. Undoubtedly the idea of central control is good; but for International purposes it would be as impossible for this to take the form of central control from a single company as it would be in the case of International wire telegraphy—hence the International Conventions in each instance. I may add that the service from London to Paris, London to Berlin, and London to Amsterdam is not under single (British) control—as might be imagined from some twice-repeated remarks of Mr. Cuthbert Hall—but is in each controlled by the country in which the station is situated. That is rather an important point. Any difficulties, such as there, no doubt, may be at the start, are best dealt with under Government control in such instances, rather than by a single company or a number of companies; and as the matter is International in character by the various Governments concerned.

Chairman.

4056. With regard to the alleged grievance of the Marconi Company against the Government, I think we have received a good deal of information from both sides on that score, and the Committee will not trouble you with that. But you mention a circular letter of which you have a copy?—Yes. There was a circular letter, of which I hand you a copy, addressed by the Marconi Company to certain shipping companies which was, I think, distinctly unfair to the delegates, and which covered another letter which it was suggested should, in some form or other, be sent to the President of the Board of Trade. The last passage of the covering letter serves as an indication—if one were needed—of the origin of certain articles in the German press with a view to being quoted in certain papers at home; for, would any German newspaper be likely to volunteer such a statement as that “If England refuses to ratify, the Convention becomes practically a dead letter”—unless influenced by some interested party? (*Vide Appendix No. 12*).

Mr. Adkins.

4057. Are both the circular and covering letter handed in?—Yes.

Mr. Gwynn.

4058. What is the suggestion of your last observation?—The suggestion is that there is a letter, and my own conclusion is this: There were certain anonymous letters and articles in the London press which quoted the German press with a view to arguing that the German papers were crowing over us in the direction of saying

Mr. Gwynn—continued.

that the delegates had not looked after our interests, and so on.

4059. Do you suggest the articles in the German press were not spontaneous themselves?—I do.

4060. Who do you suggest inspired them?—I leave you to draw your own inference.

4061. I do not know that that is a proper method of giving evidence before a Committee of this character?—At all events there is the letter. Is that useful?

4062. Do not you think that the suggestion ought either to be completed or withdrawn?—No; I am expressing my opinions.

4063. Are you expressing your opinions? Are you not declining to express them?—I am not going to make any statement. I draw my own inference, and I leave you to draw yours. I think it is a very extraordinary thing for a German paper to have stated unless it was inspired by some motive.

4064. Do you suggest that the Marconi Company inspired those articles?—I am saying nothing further about it. I hand in the letter, and I say the last paragraph in that letter is a very remarkable paragraph for a German paper to have originated.

4065. In other words, do I understand that you decline either to say that the Marconi Company inspired those articles or that they did not inspire them.

Mr. Adkins.

4066. May I ask one question to clear it up? Is this is a circular letter sent by the Marconi Company?—Yes.

4067. And a covering letter also sent by the Marconi Company?—Yes.

4068. I think it might be convenient if we heard the letter if it is not too long. It is rather difficult for us to judge how far one ought to give weight to suggested interpretations of letters which one has not seen?—I agree. I handed them in as being possibly of interest. There were various articles headed “German aims,” and so on, in the London papers.

4069. Subsequent in date to those?—Yes, subsequent in date to the articles in the German Press to which I allude.

Chairman.

4070. I do not propose to ask you any further questions in connection with your *précis*.

Mr. Sydney Burton.

4071. Your general position is, following your evidence, that the Convention, if ratified, will assist towards the diminution of confusion amongst the various wireless telegraph companies?—Yes, that is my view distinctly.

4072. I gather also, from what you say, that you think the Marconi Company have largely exaggerated their organisation and position in the matter—I mean the necessity of their organisation, rather?—Yes, I do. My own view is that here is a concern that is an International

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[Continued.]

Mr. Sydney Buxton—continued.

national concern; that the proper organisation for an International concern is an International organisation.

4073. An International organisation will take the place satisfactorily of the organisation of a private company?—Most certainly. I think it is to the interest of the country that we do not put ourselves into the hands of any one company. We want the best systems available in every sense. I do not think it is at all probable that other countries would be likely to have foisted on them any one system, unless it were proved to be enormously superior. Of course, it is possible that this new system of Mr. Marconi's—of which we have heard a good deal during the latter part of this Conference—may be going to be something extremely superior. In that case, I suppose, it is conceivable that other countries might be so much impressed with it, that they would say they wanted that system and no other.

4074. You do not think the Convention would stand in the way of experiments with and the extension of any new system, which showed itself the best?—Certainly not.

Mr. Adkins.

4075. I understand you are not connected with any of these different companies—Marconi's, or any of the others?—I am not in any way connected with any wireless telegraph company.

4076. You are an electrical engineer of considerable experience?—Yes, and I have been associated with telegraphy of all descriptions for a number of years. I do not believe in wireless telegraphy, as we know it at present, for the purposes of spanning oceans, from a commercial point of view; but that is not in any way because I have been connected with submarine telegraphy. As a matter of fact, I kept the publication of "Submarine Telegraphs" back a fortnight in order to give an Appendix as to wireless telegraphy.

4077. From the point of view of an electrical engineer who has special acquaintance with cable telegraphy, you have had your attention called to this subject. You are not connected with any of the opposing interests, and you come here to give your evidence from that point of view?—Yes.

4078. I understand your opinion to be strongly in favour of our recommending that this Convention should be ratified?—I am strongly in favour of the Convention. I was not in favour of it until I had thoroughly satisfied myself, in my own way, that our strategic position was unaffected thereby. As a matter of fact, I have given instances in which, I think, we shall, under the Convention, be better off than otherwise.

4079. And what has satisfied the Admiralty representatives on that point has satisfied you?—Yes, because they are the best authorities.

4080. It is for that reason you have come here to give evidence to-day?—Yes.

Mr. Gwynn.

4081. Can you give any detail as to the existence of other radiotelegraphic organisations in America and the amount of work they are doing?—My own impression is that Mr. Babington

Mr. Gwynn—continued.

Smith's evidence was sufficient on that point. However, here is the Western Union Telegraph Company's Tariff Book. Now cable companies do not go out of their way to give publicity to wireless systems unless they are at any rate quite satisfied that the connection is a good one commercially. Yet in this book you will find a whole page devoted to wireless telegraph stations on the coast of the United States. Then also the Telefunken Company have a large number of stations on the shores of the North Sea, as well as on most of the foreign Naval vessels.

4082. Is this an advertisement in the book?—No, it is certainly not an advertisement, but the ordinary particulars corresponding to those given in our Postal Guide.

4083. Is that an official publication?—Yes, of the "Western Union" Company.

4084. An official publication of that company?—Yes.

Mr. Sydney Buxton.

4085. These stations you are quoting are non-Marconi stations?—That is so.

Mr. Gwynn.

4086. What organisation do they belong to?—The De Forest Wireless Telegraph Company, and I think some of them are Fessenden.

4087. Was your attention called to the fact that in the evidence of Mr. Marconi, speaking for the Marconi Company, he expressed himself as quite willing to see stations of other companies licensed in this country, provided his company was not forced to intercommunicate?—Yes, I remember that quite well, but I do not think it was the line taken by Mr. Cuthbert Hall.

4088. Did Mr. Cuthbert Hall say anything contradictory of that?—I think so. For one thing, surely he takes up the line that any other system is an infringement of their own—that they have the sole right, indeed, of using Hertzian waves for the purpose of telegraphy.

4089. Would not that be a matter which would have to be settled in a court of law?—Yes, that is what I have been waiting for.

4090. Do you suggest that Mr. Marconi and Mr. Cuthbert Hall took diametrically opposite views of the policy of the Marconi Company?—They seemed to contradict each other on one or two points.

4091. What exactly do you mean by the danger of the art of wireless telegraphy getting out of hand?—I think if you do not have any organisation, and if you have either one company working on its own, so to speak, or a number of companies all working without any sort of organisation, it will get out of hand. By getting out of hand, I mean getting out of control. If you have no organisation, obviously you have no control.

4092. You mean the company would get too strong for the Government?—My point was this. Just the same as in wire telegraphs, it was found absolutely essential to have a uniform system of control, so similarly—and still more so, in fact—in wireless telegraphy. (*Vide* also Memorandum—Appendix No. 13.)

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A P P E N D I X.

APPENDIX No. 1.

AGREEMENT between the Admiralty and the Marconi Wireless Telegraph Company.

This Indenture made the 24th day of July 1903 between Marconi's Wireless Telegraph Company Limited (hereinafter called "the Company") of the one part and The Commissioners for Executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland (hereinafter called "the Commissioners") of the other part. Whereas the Company have supplied to the Commissioners 32 installations of Marconi's Wireless Telegraph apparatus which installations were supplied and are maintained on the terms of a Deed of Agreement dated the 20th day of February 1901 made between the Company and the Commissioners. And whereas the Commissioners have fitted up other installations and may require further installations.

Now this Indenture witnesseth that it is agreed by and between the parties hereto as follows that is to say :—

1. In this Indenture, unless otherwise expressly provided or unless the context otherwise requires the following expressions shall have the meanings hereby assigned to them :—

"The Company" shall include the assigns of the Marconi Wireless Telegraph Company, Limited ;

"Installation" shall mean an equipment of instruments, stores and appliances necessary for wireless telegraphy according to the system from time to time adopted by the Company ;

"Long-distance station" shall mean a station capable of transmitting a message 500 miles and upwards to vessels fitted with suitable receivers ;

"Maritime signalling" means the collection by wireless telegraphy publication and diffusion of intelligence and information with respect to merchant shipping cargoes and insurance ;

"Sea telegraphy" means the receipt and transmission by wireless telegraphy of messages to and from passengers on vessels messages of public news transmitted to or from vessels and generally messages transmitted to or from vessels which could not reasonably be described by the expression "maritime signalling."

2. The said Deed of Agreement of the 20th day of February 1901 is hereby cancelled and shall be null and void as from the 31st March 1903.

3. The Company hereby admits that the Commissioners have by virtue of section 27 of the Patent Act 1883 full right upon the conditions mentioned in the said section to use and exercise for the purposes of His Majesty's Navy which purposes shall be deemed to include the employment (at the user's risk) of wireless telegraph apparatus ashore by Naval officers and men for military purposes the inventions comprised in the British Letters Patent dated the 2nd July 1896 No. 12039 and the British Letters Patent dated the 26th day of April 1900 No. 7777 and also any further patented inventions to which the Company are or may become entitled and of which they are or may become possessed or over which they have control and power to use or which may be used by the Company and all improvements in any such inventions for the period of 11 years from the 1st day of April 1903 and (if and so far as such user shall not be contrary to the provisions of the existing or any future International Telegraph Convention) the right to require the Company during the said term of 11 years in each day for a time not exceeding 20 consecutive minutes to forward and receive at the current transatlantic rate for ordinary public messages not exceeding 5d. per word to the exclusion of all other messages such messages to and from one of the Company's long-distance stations in Great Britain or Ireland as the Commissioners or their Officers may require them to forward or receive. The Company will when any of H.M. ships may be in communication with any of the Company's stations at any time receive at any such station messages from any such ship and forward them to their destination and also forward messages from any such station to any such ship at the rates from time to time applicable to Government messages and in any case not exceeding current rates for ordinary messages. The Commissioners upon payment or tender of such rates shall be at liberty if necessary to require the Company to forward messages from any station in Great Britain or Ireland to the extreme range of which such station may be capable. The time of the day during which the Commissioners shall have the exclusive right above-mentioned shall be such time between the hours of 6 a.m. and 11 a.m. Greenwich mean time as may from time to time be appointed by the Company and the long-distance station from or at which the Company shall forward or receive the said messages shall be from time to time appointed by the Company. No alteration in the time or substitution of another long-distance station shall be made except after the expiration of two weeks' notice in writing given by the Company to the Commissioners.

4. The Company hereby agree with the Commissioners—

I. That they will subject to the rules for the time being in force by virtue of the Berne Convention give priority to Admiralty messages in case of emergency of the existence of which the Admiralty shall be the sole judges.

II. That they will to the exclusion of all other messages forward or receive all messages which the Commissioners or their Officers may require them to forward or receive during the time and at the long-distance station appointed under the provisions of the last preceding clause and will with reasonable dispatch forward all messages received to the destination to which they may be addressed or for which they may be intended. The Company will once in each week forward to the Secretary to the Admiralty upon a form to be agreed upon between the parties hereto a return setting forth copies of the messages sent or received in the preceding week the date upon which the same were sent or received and the sums claimed in respect of the same.

III. That they will with reasonable despatch after the same has been discovered from time to time communicate to the Commissioners any improvement in apparatus intended to be used for wireless telegraphy or in the methods of signalling within their knowledge and to which they are or may become entitled and of which they are or may become possessed or over which they have or may have control and power to use or which may be used by the Company.

IV. That they will supply to the Commissioners any further installations or parts of installations that they may order from the Company during the said period of 11 years all such installations or parts of installations to be supplied at current trade prices except the articles specified in the Schedule hereto which articles are to be supplied at the prices set opposite to them respectively in such Schedule and also will supply to them when required duplicate parts of any such installations not mentioned in the Schedule hereto at the then ruling trade prices. All parts so supplied shall be interchangeable with the corresponding parts of all other installations of similar pattern.

V. That they will make and deliver at current trade prices and if required at the Commissioners' expense fit to any installation for the time being of the Commissioners whether made or supplied by the Company or not all improvements in wireless telegraphy apparatus within their knowledge and of or to which they are or may become entitled and of which they are or may become possessed or over which they have or may have control and power to use or which may be used by the Company and which shall in the opinion of the Commissioners be applicable to ship purposes. If the Commissioners require the Company to make deliver and [or] fit any device which they may deem suitable for ship purposes but which the Company shall be of opinion is not suitable then and in that case the Company shall be released from their obligations in respect of the installation to which such device is fitted for so long as the said device is used.

VI. That for so long a time as the Commissioners shall think necessary they will supply at a charge of £1 per day and reasonable travelling expenses competent instructors in the art and practice of wireless telegraphy to teach persons selected by the Commissioners and to give advice in drawing up written instructions for operators and others and in tuning all their installations for the time being whether manufactured or supplied by the Company or not and will allow Officers of the Commissioners specially employed for wireless telegraphy duties from time to time to visit the Company's stations and workshops (in the case of long-distance stations upon giving 24 hours' notice) in order to keep themselves acquainted with the latest developments thereat and will exhibit from time to time to such Officers all the newest apparatus in use at such stations.

5. The Commissioners hereby agree with the Company—

(a). That they will pay to the Company on the execution of these presents the sum of £20,000 in consideration for the rights and privileges hereby granted and conferred and will also pay to the Company within three months from the 31st day of March 1903 on production by the Company of the Certificates stipulated for in the Agreement of the 20th February 1901 the further sum of £1,600 being the amount of the royalty payable to them in respect of the said 32 existing installations calculated up to that date.

(b). That if the Company shall duly perform its obligations under this Indenture they will pay to the Company on or before the 30th day of April in every year during the said period of 11 years the sum of £5,000 the first of such payments to be made in April 1903 and to cover the period until April 1904.

(c). That they will not purchase the duplicate parts specified in the Schedule hereto or any other parts which may hereafter be agreed to be treated as included therein from any person or Company other than the Company so long as the Company are in a position to supply and do supply the same in a reasonable time after the order is given. If the Company shall not be in a position to supply or shall fail to supply the same within a reasonable time after the order is given the Commissioners may without making any further payment themselves manufacture any such apparatus. Notwithstanding anything contained in this clause the Commissioners shall at all times be at liberty to obtain from other sources such apparatus used for wireless telegraphy as is not enumerated in the Schedule referred to.

6. If and so long as the Commissioners shall conduct the business of maritime signalling or sea telegraphy of any station or stations within the United Kingdom belonging to or controlled by them they shall conduct such business in conformity with the system adopted at similar stations under the control of the Company provided always that the Commissioners shall be under no obligation to continue the business of maritime signalling or sea telegraphy at any of their stations if the conduct of such business interferes with the efficiency of communication with H.M. ships.

So long as the Commissioners conduct such business at any station or stations within the United Kingdom they shall in each month report to the Company on a form to be agreed the number and length of any messages forwarded or received in the preceding month and will pay over to the Company any payments made to them in respect of such messages.

The Company shall be at liberty to send a duly authorised person to inspect the apparatus in use at any station at which the Commissioners are conducting the business of maritime signalling and sea telegraphy and the working thereof.

7. Except in time of emergency of the existence of which the Commissioners shall be the sole judges of war or in the case of warships of all nations or of distress signals the Admiralty shall not use Marconi Wireless Telegraphy apparatus fitted in stations in the United Kingdom worked by them for the interchange of signals with or for forwarding signals to vessels or stations not equipped with apparatus supplied by the Marconi Company provided always that in the event of the Commissioners failing to observe the provisions of this clause in consequence of any legislation which either expressly or impliedly releases them from the obligation to observe the same the Company shall be entitled to compensation (to be settled by arbitration in accordance with the provisions of clause 16 hereof) in respect of the profit which they would have made had the Commissioners continued to observe such provisions during the whole term of this Agreement. The Company shall from time to time furnish the Admiralty with a list of ships fitted with apparatus supplied by them.

8. In order to render Naval operators proficient in all branches of wireless telegraphy and qualify them to carry out commercial signalling when required the Company will give free of charge instruction and practice to Naval operators at any stations for shipping purposes worked by the Company or under their control.

9. The Commissioners shall at all times during the said term of 11 years or for such portion or portions thereof as the Company shall desire them to do so regard as confidential all apparatus and articles specified in the Schedule hereto or which may hereafter be agreed to be treated as included therein and also all advice information and instructions given by the Company or by any person or persons on their behalf to them or to any of their officers or employees and also any contracts disclosed to the Commissioners under the provisions of clause 4 (2) hereof and will not teach or communicate the details of working of or except in case of emergency without the consent of the Company transfer any such apparatus or article to any person not belonging to H.M. Naval Service or not employed or not about to be employed by the Commissioners in connection with wireless telegraphy for such service and will issue general instructions to all concerned to observe the provisions of this clause.

10. Provided always and it is hereby agreed and declared by and between the said parties hereto that if at any time during the said period of 11 years either of the said Letters Patent hereinbefore specified shall be proved to be invalid the Commissioners may give one month's notice in writing under the hand of their Secretary to determine this Agreement and thereupon all their obligations hereunder shall absolutely cease and determine.

11. The payment of the before-mentioned sums of money to the Company shall not be regarded or taken as an admission by or on the part of the Commissioners that any of such patents are valid or that the user of the installations or of any apparatus or thing constituting parts of such installations as covered by such patents or any of them is a lawful user thereof within the limits (if any) within which the user thereof may under any statutes now in force be unlawful.

The maintenance of all installations shall be at the expense of the Commissioners.

14. Notwithstanding any of the provisions hereinbefore contained the Company shall not be under any liability in consequence of any error in messages forwarded or received by the Company or in consequence of the non-receipt at its intended destination of any messages intended to be so forwarded or received.

16. If any dispute shall arise between the Company and the Commissioners touching the meaning of this Indenture or any part thereof or touching any matter or thing arising out of the same or in anywise connected therewith the same shall be determined by a single arbitrator appointed under the provisions of the Arbitration Act 1889.

THE SCHEDULE hereinbefore referred to.

<i>Short Wave :</i>								
Transmitting Jigger No. 5	-	-	-	-	-	-	-	£ s. d.
Condenser for same (Tray of 6 Leyden jars)	-	-	-	-	-	-	-	5 1 6
Receiving Jigger No. 306	-	-	-	-	-	-	-	6 4 0
	-	-	-	-	-	-	-	0 10 9
<i>Long Wave :</i>								
Transmitting Jigger No. 17	-	-	-	-	-	-	-	4 14 0
Condenser for same (Tray of 15 Leyden jars)	-	-	-	-	-	-	-	14 10 0
Receiving Jigger No. 343	-	-	-	-	-	-	-	0 17 0

(Signed for the Marconi Company) H. CUTHBERT HALL, } Directors.
ALBERT OCHS, }
HENRY W. ALLEN, Secretary

(Signed on behalf of the Admiralty) W. H. MAY (Rear Admiral)
J. DURNFORD (Rear Admiral)
Lords Commissioners of the Admiralty.

(Witness) GORDON W. MILLER, Director of Navy Contracts.

APPENDIX No. 2.

AGREEMENT between Lloyd's and the Marconi Company.

MEMORANDUM of Agreement made the 26th day of September 1901 between the Marconi International Marine Communication Company Limited whose registered office is at 18 Finch Lane in the City of London (hereinafter called "the Company") of the one part and the Society incorporated by Lloyd's Act 1871 under the name of "Lloyd's" of the other part. Whereas the Company has acquired from Marconi's Wireless Telegraph Company Limited the sole and exclusive license to use for all maritime purposes in all parts of the world except the United States of America Hawaii the Republic of Chili and any Colonies or Dependencies thereof respectively certain patent rights and inventions for Wireless Telegraphy collectively known as the Marconi System and also all other patent rights which Marconi's Wireless Telegraph Company Limited may hereafter acquire or have the power to use and exercise all of which rights and inventions are hereinafter referred to as "the Marconi System." And whereas Lloyd's is of opinion that it is desirable that one system of Wireless Telegraphy should be in general use and whereas the Marconi system is in such general use and has been proved to the satisfaction of Lloyd's to be a good working system and whereas Lloyd's has lately expended about £4,500 in all in developing certain other systems of Wireless Telegraphy but is willing to adopt the Marconi system upon the terms and conditions hereinafter mentioned now it is hereby agreed as follows:—

1. The Company hereby grants to Lloyd's the right and license to use and work for the sole purpose of maritime signalling at all or any of Lloyd's Signal Stations already established or to be at any time hereafter during the currency of this Agreement established in any part of the world (excepting the United States of America, Hawaii the Republic of Chili and any colonies or dependencies of the same respectively and excepting also subject to the provisions of Clause 12 hereof any country not being part of the British Empire or a colony or dependency or protectorate thereof in which or in the territorial waters of which Lloyd's has not at the date of this Agreement already established or obtained permission to establish any signal station of its own), the Marconi System of Wireless Telegraphy and any patents or inventions in connection therewith and any improvements therein which the Company may now or at any time hereafter during the currency of this Agreement itself have the right to use and work. For the purposes of this Agreement the expression "Maritime Signalling" shall mean the collection publication and diffusion of all such intelligence and information with respect to shipping cargoes freights and insurance as is at present collected or diffused by Lloyd's.

2. The Company shall with all reasonable despatch provide and instal a set of apparatus for working the Marconi System at such of Lloyd's Signal Stations as Lloyd's may from time to time during the currency of this Agreement require and Lloyd's shall pay to the Company the sum of £113 for each single set of untuned apparatus as specified in the First Schedule hereto and a further sum for the cost of installation at every such station equal to the out-of-pocket expenses incurred by the Company in such installation. All installations renewals and repairs shall be effected with reasonable despatch by the Company's workmen at the expense of Lloyd's such expense to include the current market price of apparatus cost of labour and supervision and all other reasonable disbursements. No part of any apparatus provided by the Company under this Agreement shall at any time be disposed of by Lloyd's to any other person or Corporation or be used at any place or places other than Lloyd's Signal Stations.

3. Lloyd's shall pay to the Company a royalty at the rate of £20 per annum in respect of each signal station at which the apparatus is installed such royalty to be paid monthly. The first monthly payment shall be made one month from the day on which the apparatus shall have been installed and completed ready for working at the signal station and subsequent monthly payments shall be made on the corresponding day in every month.

4. If at any time during the currency of this Agreement the Company shall use for the purposes of sea telegraphy any improved apparatus this Agreement shall apply to the same and Lloyd's shall have the right to buy such apparatus from the Company for use at any of Lloyd's Signal Stations at the Company's current market prices and to have the same installed by the Company as aforesaid.

5. The Company shall within thirty days from the execution of this Agreement pay to Lloyd's the sum of Three Thousand Pounds in cash and shall cause to be transferred to a nominee or nominees of Lloyd's 500 ordinary fully paid shares of £1 each of Marconi's Wireless Telegraph Company Limited and shall also cause to be transferred or allot to the Secretary of Lloyd's 100 Ordinary Shares of £1 each (5s. per share paid up) of the Company and such cash and shares shall be accepted by Lloyd's in full satisfaction of the sum of £4,500 above referred to.

6. Lloyd's shall before the 1st October 1901 give an order to the Company for the installation of the Marconi System in at least ten Lloyd's Signal Stations on the terms above-mentioned and shall during the currency of this Agreement keep the system installed and available for working in at least ten Lloyd's Signal Stations in all. But if Lloyd's shall at any time desire to discontinue the system at any Lloyd's Signal Station in which it may have been installed Lloyd's shall be entitled to do so upon condition of installing the system in some other Lloyd's Signal Station instead and in such case the Company shall at the request and expense of Lloyd's remove the apparatus from such Station and instal it at any other Lloyd's Signal Station to be designated by Lloyd's for the purpose.

7. Lloyd's shall not during the currency of this Agreement use or permit to be used any system of Wireless Telegraphy other than the Marconi System at or in connection with any of Lloyd's Signal Stations situate elsewhere than in any of the countries excepted under Clause 1 of this Agreement.

8. Subject to Clause 10 hereof and to the exceptions specified in the Second Schedule hereto the Company shall not during the currency of this Agreement carry on any maritime signalling at any place whatever in the United Kingdom nor at any place outside the United Kingdom situate elsewhere than in any of the countries excepted under Clause 1 of this Agreement and the Company will at all times use its best endeavours to prevent other persons from using any system of Wireless Telegraphy for the purpose of maritime signalling at any such place as aforesaid. But this Clause shall not affect the Company's Agreement of the eighteenth day of July 1901 with Mr. Walters in connection with the Jones Bank scheme.

9. If at any time during the currency of this Agreement the Company shall desire to establish a system of "Sea Telegraphy" at any of Lloyd's Signal Stations in any part of the world and shall give notice in writing to Lloyd's of such desire it shall have the right to instal and maintain such system at such station at its own expense and Lloyd's shall work such system for the Company and all revenue derived from sea telegraphy at any such station shall be accounted for by Lloyd's to the Company less only all reasonable out of pocket expenses incurred by Lloyd's in complying with the Company's requirements. On the termination of this Agreement the expense of removing the installation shall be paid by the Company. For the purposes of this Agreement the expression "Sea

Telegraphy" shall mean only the receipt and transmission of messages to and from passengers on vessels messages of public news transmitted to or from vessels and generally any messages transmitted to or from vessels which could not reasonably be described by the expression "Maritime Signalling" as herein before defined.

10. If at any time during the currency of this Agreement the Company shall desire to establish a system of "Sea Telegraphy" at any place or places in any part of the world outside the United Kingdom at which or within a radius of twenty miles of which there is at the time no Lloyd's Signal Station and shall give notice in writing to Lloyd's of such desire Lloyd's shall within thirty days from the date of receipt of such notice inform the Company in writing whether it is willing to establish a Lloyd's Signal Station at such place or not. In the former case Lloyd's shall forthwith proceed to establish a Lloyd's Signal Station at such place and all the provisions of this Agreement shall apply to such Station. But if Lloyd's shall not be willing to establish such Station or shall fail to establish the same with all reasonable despatch then the Company shall be entitled to itself establish a Station at such place and to use the same for maritime signalling as well as for "Sea Telegraphy." Provided that this Clause shall not apply to any country excepted under Clause 1 of this Agreement.

11. Nothing in this Agreement shall be taken to preclude Lloyd's from establishing Signal Stations in any part of the world at any place or places where Lloyd's may desire to establish such Stations nor from utilising any outlying lighthouse or lightship as a Signal Station and the provisions of this Agreement shall apply to any such new Signal Station and to any Lighthouse or Lightship so utilised by Lloyd's.

12. If Lloyd's shall at any time during the currency of this Agreement establish a Signal Station or Stations in any country (not being part of the British Empire or a Colony Dependency or Protectorate thereof) in which Lloyd's has not at the date of this Agreement already established or obtained permission to establish any Signal Station of its own and either Lloyd's or the Company shall have obtained permission of the authorities to instal and use Wireless Telegraphy in such country and Lloyd's shall desire to instal and use Wireless Telegraphy at such Station or Stations then Lloyd's shall not instal or use or permit to be installed or used at or in connection with any such Station at any time during the currency of this Agreement any system of Wireless Telegraphy other than the Marconi System unless the Company shall fail to grant Lloyd's the right and license to use and work the system at such Station within one month from its being required in writing by Lloyd's to do so or (in the event of such right and license being duly granted) shall fail to instal and complete the system ready for working at such Station within six months from the date of the aforesaid requirement or such further reasonable time as may be agreed upon or (failing agreement) fixed by arbitration in manner hereinafter provided in either of which cases Lloyd's shall be free to use any other system of Wireless Telegraphy at such Station. Provided that the Company shall be bound on the requirement of Lloyd's to allow the use of the Marconi System at any such Station unless prohibited from doing so by the laws of authorities of the country in question. The provisions of this Agreement shall apply to any Signal Station at which the Marconi System may be installed in pursuance of this Clause.

13. From the date and during the currency of this Agreement the Wireless Telegraphy Stations already established by the Company in the United Kingdom shall be worked by Lloyd's but all revenue derived from such Stations in respect of "Sea Telegraphy" shall be accounted for (less the Post Office charges for transmission of telegrams) by Lloyd's to the Company monthly and the Company shall be entitled at its own expense to add one or more experts to the signal staff at each of such Stations and also at any Lloyd's Signal Station at which the Company may establish a system of sea telegraphy under the provisions of Clause 9 hereof to assist in the working of the "Sea Telegraphy" there.

14. Except as provided in Clause 10 hereof the Company shall not during the currency of this Agreement establish any Signal Station for the purpose of maritime signalling or sea telegraphy in any part of the world other than the countries excepted under Clause 1 of this Agreement and shall use its best endeavours to prevent any other persons from doing so. But this Clause shall not affect the Company's Agreement of the eighteenth day of July 1901 with Mr. Walters in connection with the Jones Bank scheme.

15. During the currency of this Agreement the Company shall at all times transmit to Lloyd's all marine intelligence received by the Company. All such intelligence shall be transmitted to Lloyd's immediately on the same being received and direct from the place where the same is first received by the Company's employes. The cost of transmission shall be repaid to the Company by Lloyd's. This provision shall not apply to sea telegraphy except that whenever a sea telegraphy message shall convey intelligence of the position or movements of the vessel from which it is received such intelligence shall be transmitted to Lloyd's as aforesaid.

16. The Secretary for the time being of Lloyd's shall be forthwith appointed a director of the Company and shall be entitled to hold office as such during the currency of this Agreement but he shall cease to be a director on the termination of this Agreement.

17. During the currency of this Agreement Lloyd's shall not apply for any license from His Majesty's Government for the practice of Wireless Telegraphy in the United Kingdom which shall be calculated to prevent or hinder the carrying on of sea telegraphy in accordance with the provisions of this Agreement.

18. During the currency of this Agreement Lloyd's shall from time to time insert in its general public advertisements and official publications an announcement of the fact that certain of Lloyd's Signal Stations (the names of which shall be specified in the announcement) are equipped with the Marconi System of Wireless Telegraphy.

19. This Agreement shall remain in force for the term of fourteen years from the date hereof, but may be terminated by either party at the expiration of the said term by giving six months previous written notice to the other. If not so terminated at the end of the said term it shall continue until determined by either party giving six months previous written notice to the other.

20. Lloyd's shall furnish to the Company monthly accounts of all royalties and other moneys payable by them under this Agreement and shall afford to the Company its officers and agents all reasonable facilities for checking and verifying such accounts and particularly by comparing the same with Lloyd's books of account.

21. Annexed hereto is a complete list of Lloyd's Signal Stations established or authorised at the date of this Agreement in which list are underlined in red ink those Stations situate elsewhere than in the British Empire or the Colonies Dependencies and Protectorates thereof which for the purposes of this Agreement (but not for any other purpose) Lloyd's agrees shall be deemed not to be "its own" within the meaning of that expression in Clauses 1 and 12 hereof.

22. Any dispute or difference at any time arising between the parties hereto or their respective successors or assigns shall be referred to arbitration in London and all the statutory provisions as to arbitration for the time being in force in England shall apply hereto. Provided always that this submission to arbitration shall not at any time preclude either of the parties hereto or their respective successors or assigns from instituting and prosecuting any legal proceedings in London for the purpose of obtaining any order for specific performance or any restraining injunction against the other party or its successors or assigns in respect of any matter arising out of this Agreement or any alleged breach thereof.

THE FIRST SCHEDULE.

Aerial and Fittings—3 pairs ebonite rod insulators 1 heavily insulated conductor 220 yards 7/20. I.R.C. copper wire transmitting one 10" induction coil complete in case with spare pair of contacts 1 switch key in case and spare pair of contacts 2 accumulators 4 cells each E.P.S. Company's 11 Q type 35 ampere hours and discharge of 6.5 amperes (sealed acid type) 50 "M" size Obach cells. Receiving—1 receiver complete in iron screening box (unbalanced air-tight relay) and adjusting stand 1 Morse inker fitted with switches and call-bell 1 box of 5 tested coherers 1 set of testing shunts 1 buzzer complete. Sundries—1 connection sheathed with lead tubing 1 bottle Morse ink 24 rolls Morse paper 1 oz. reel No. 36 bare platinoid wire 20 yards I.R.C. bell wire ¼ lb. roll rubber tape ½ lb. roll prepared tape 2 oz. tube rubber solution 1 smooth file for contacts. Packing—1 zinc-lined cases for gear 1 accumulator crate 5 cases for "M" size Obach cells.

THE SECOND SCHEDULE.

1. Governments Corporations Companies or persons using Wireless Telegraphy apparatus for reporting their own vessels to Stations under their own control.

2. Any reporting by means of Wireless Telegraphy apparatus carried on by or under the control of Governments or by Corporations formed for the purpose of providing a general organisation of lighthouses and lightships in any country.

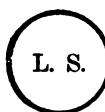
3. The 100 words per message allowed by the Company free of charge to passenger vessels equipped with the Wireless Telegraphy apparatus under agreement with the Company.

4. Reports from Nantucket Lightship to the "New York Herald" under an agreement with the Company.

In Witness whereof the Common Seal of the Company and the Seal of Lloyd's have been hereunto affixed.

The Seal of the Corporation of Lloyd's
was hereunto affixed in the presence
of

(Signed) *John B. Watson,*
For the Secretary of Lloyd's.



The Common Seal of the Marconi International Marine Communication Company Limited was hereunto affixed in the presence of

(Signed) *S. Flood Page.*
(Signed) *Henry S. Saunders.*
(Signed) *Henry W. Allen, Secretary.*



Memorandum of Agreement made the 26th day of September 1901 between the Society incorporated by Lloyd's Act 1871 under the name of Lloyd's of the one part and Marconi's Wireless Telegraph Company Limited (hereinafter called "The Company") of the other part.

1. In case Lloyd's shall at any time during the currency of a certain Agreement of even date herewith between Lloyd's and the Marconi International Marine Communication Company Limited obtain from His Majesty's Government a License to use and exercise Wireless Telegraphy in the United Kingdom for purposes other than those of Maritime Signalling and Sea Telegraphy as defined by the said Agreement Lloyd's shall entrust to the Company the working of Wireless Telegraphy in pursuance of every such License for all purposes other than those aforesaid and the profits of such working entrusted by Lloyd's to the Company shall belong to the Company but the latter shall repay to Lloyd's all the necessary expenses incurred by Lloyd's in connection with such working

2. Nothing herein contained shall be construed as obliging Lloyd's to apply for or accept any such License or as precluding Lloyd's from surrendering the same (if granted) at any time.

3. This Agreement shall *ipso facto* determine on the expiry or surrender of any such License but in the event of any such License being renewed after its expiry or surrender then this Agreement shall again *ipso facto* come into force for the period of such renewal.

In Witness whereof the Seal of Lloyd's and the Common Seal of the Company have been hereunto affixed.



MARCONI'S WIRELESS TELEGRAPH CO.

(Signed) *S. Flood Page,*
(Signed) *Henry S. Saunders,* } Directors.
(Signed) *Henry W. Allen, Secretary.*

APPENDIX No. 3.

HEADS OF AGREEMENT between the Postmaster General of the one part, and Marconi's Wireless Telegraph Company, Limited, and the Marconi International Marine Communication Company, Limited, of the other part (which Companies are hereinafter referred to as "the Companies").

1. During a period of 15 years from the date of these Heads of Agreement the Postmaster General will grant, subject to the conditions hereinafter specified, facilities for the collection, transmission, and delivery in the United Kingdom* of messages to and from places in Newfoundland and North America exchanged between the United Kingdom and Newfoundland and North America by means of the Marconi wireless telegraph apparatus, such apparatus to be installed at Poldhu, Cornwall, and such other stations in the United Kingdom as shall be agreed upon between the Companies and the Postmaster General, and such facilities to be substantially the same as are granted to the Submarine Cable Companies in relation to similar messages.

Corresponding facilities for messages exchanged between the United Kingdom and other countries or places will be granted during the same period in relation to such countries or places and in relation to such stations in the United Kingdom as may from time to time be agreed upon between the Companies and the Postmaster General.

Provided that:—

(a) The Postmaster General will not grant any such facilities as are mentioned in this sub-clause unless he is satisfied that the Companies are in a position to transmit and receive with reasonable certainty and reasonable speed the messages for which the facilities are required, and to secure the delivery of outward messages at their destination.

(b) The Postmaster General will not, except in the case of Italy, which shall be open to consideration, grant such facilities in respect of messages to or from the Continent of Europe.

2.—(1) Subject to the conditions hereinafter specified, and subject and without prejudice to the operation of the Agreements of the 26th September 1901, between the Companies and the Committee of Lloyd's, the Postmaster General will, during a period of eight years from the date of these Heads of Agreement, grant the like facilities for messages exchanged between ships and the several stations in the United Kingdom specified in the Schedule hereto (subject to the conditions appearing in such Schedule) and such other stations in the United Kingdom as shall from time to time be agreed upon between the Companies and the Postmaster General. Messages exchanged between ships and stations on shore are hereinafter referred to as "ship-and-shore messages."

(2) So far as a licence is necessary to the transmission of such ship-and-shore messages as are mentioned in the preceding sub-clause, the Postmaster General will grant such licence for the period of eight years in the said sub-clause mentioned, subject to such conditions not inconsistent with this Agreement as may be specified in such licence.

(3) The Company shall observe all such conditions not inconsistent with this Agreement as may from time to time be prescribed by legislation in relation to ship-and-shore messages.

3.—(1) In the event of any future grant by the Postmaster General of facilities for the collection, transmission, and delivery of messages in connection with wireless telegraph stations at which any system of wireless telegraphy other than the Marconi system is installed, the Postmaster General will require the Company or person owning or working such stations to observe suitable conditions with the object of securing non-interference with other wireless telegraph stations.

(2) The Companies shall accept in relation to their stations all such conditions as may be from time to time imposed under the preceding sub-clause. Provided that such conditions shall not unreasonably require the Companies to change the position of any station or to make any change in apparatus or arrangements which have already been adopted by them *bona fide* for the purpose of communication, and which for the purposes of each station are in conformity with the best and most efficient methods at their disposal for preventing interference. The Companies shall in any case work their stations as far as possible so as not to interfere with the working of other stations.

4 Subject to the provisions of these Heads of Agreement the Companies, will in relation to all their stations, observe the International Telegraph Convention of St. Petersburg, and all modifications thereof, and regulations made thereunder, so far as the same also apply to ordinary land and submarine telegraphy.

5. Subject and without prejudice to the other provisions of these Heads of Agreement, the Companies undertake for the purpose of avoiding interference in general with Admiralty signalling, to act in agreement with the Admiralty as to conditions of working.

6. His Majesty's Government shall have power to prohibit or control the working or, if necessary, to take over the working, of any of the Companies' stations in the event of any emergency, subject to payment of reasonable compensation to the Companies under the same conditions as those prescribed in the landing licences granted to Cable Companies.

7. Only British subjects shall be employed as operators at the Companies' stations in the British dominions.

8. Subject to the provisions of this Agreement, and of the Agreement of the 24th July 1903, between the Admiralty and the Marconi's Wireless Telegraph Company, no favour or preference shall be given by the Companies to other persons in respect of charge or service at any of the Companies stations.

9. Messages of the British Government shall be transmitted with priority over all other messages, and, notwithstanding anything to the contrary in the said Agreement with the Admiralty of the 24th July 1903, at rates not exceeding one-half of those charged to the public.

10. In the event of His Majesty's Government adhering for the United Kingdom to a Convention based substantially on the stipulations contained in the Protocol of the recent Berlin Conference on wireless telegraphy, the Companies undertake, if required by the Government, to observe in the United Kingdom and on British ships the provisions (except Art. VI.) of the Convention, and of any detailed regulations made thereunder for carrying these provisions into effect, and in particular and without prejudice to the generality of the foregoing undertaking the Companies undertake, if required by the Government, in relation to shore stations in the United Kingdom and ships equipped with Marconi apparatus for ship and shore messages, to accept (without prejudice to their patent rights) the obligation to interchange messages with ship and shore stations in the United Kingdom respectively equipped

* In these Heads of Agreement the United Kingdom includes the Channel Islands and the Isle of Man.

with other apparatus, and to relieve the Admiralty and Lloyd's and all other persons with whom the Companies have contracted from any obligation arising under their contracts to refuse to ~~interchange~~ messages with ships or shore stations in the United Kingdom so equipped, or to make any compensation in respect of the interchange of such messages. Provided that—

(1) In every case in the United Kingdom in which the Companies are or may be entitled to receive the rate allocated to a shore station in respect of a ship-and-shore message the Companies shall be entitled to receive, until the end of seven years from the date of these Heads of Agreement, an additional rate in respect of every such message interchanged with another system, such additional rate not to exceed the rate allocated to the shore station.

(2) The Companies shall not be bound under any provision of the Convention to give information as to details of apparatus.

11. Should any licence or permission from any department of His Majesty's Government hereafter be necessary by law to the transmission and receipt of messages by wireless telegraphy, the following provisions shall have effect:—

(1) Such licence or permission as may be necessary for such exchange of messages as is referred to in the first two clauses of these Heads of Agreement shall be granted for the respective terms of 15 and 8 years referred to in those clauses, subject to the conditions specified in the said two clauses, and to such conditions not inconsistent with the provisions of this Agreement as may be specified in such licence or permission.

(2) Every licence or permission granted by the Government shall contain suitable conditions as to non-interference with other wireless telegraph stations. Provided that such conditions shall not unreasonably require the Companies to change the position of any station, or to make any change in apparatus or arrangements which have already been adopted by them *bona fide* for the purpose of communication, and which for the purposes of each station are in conformity with the best and most efficient methods at their disposal for preventing interference.

Provided, nevertheless, that none of the provisions of this clause shall take effect, except so far as the same are consistent with any legislation which may be enacted on the subject of wireless telegraphy.

12.—(1) These Heads of Agreements shall be binding on the Companies jointly and severally, and the benefits accruing to the Companies under these Heads of Agreement shall be enjoyed by such one of the Companies as may be specified in that behalf by the Companies jointly

(2) Arrangements shall be made by the Companies to secure that the provisions of these Heads of Agreement shall be observed by all persons or corporated bodies having any right to use Marconi apparatus, so far as the said provisions are applicable.

13. These Heads of agreement shall, except as otherwise provided, continue in force for a period of 15 years from the date hereof, and shall then cease and determine.

14. In consideration of the advantages accruing to them under these Heads of Agreement, the Companies shall make no claim to compensation for or in respect of any interference with their business involved in or arising from the necessity of obtaining a licence or permission for the transaction of such business, or in respect of any other injury or damage to their interests due to legislation on the subject of wireless telegraphy, provided that the terms of these Heads of Agreement are not thereby modified.

15. Such formal documents as may be deemed necessary by the Postmaster-General to give effect to these Heads of Agreement, with all proper ancillary and consequential provisions, shall be prepared by the Solicitor to the Post Office, and shall, when accepted by the parties thereto, be forthwith executed.

Dated the 11th day of August 1904.

The SCHEDULE before referred to.

Lizard.
Rosslare.
Crookhaven (or Brow Head).
Withernsea - - -
Caister - - -
Niton - - -
Holyhead - - -
North Foreland - - -
Haven - - -

These stations are to be closed if the Admiralty find that working at such stations interferes with Admiralty stations, in which case arrangements will be made for substituted stations or for the transaction of sea telegraphy, and, if Lloyd's so desire, maritime signalling by the Admiralty on behalf of the Companies at their adjacent stations.

STANLEY.

Witness—
ROBERT HUNTER,
Solicitor to the Post Office.

For Marconi's Wireless Telegraph Company, Limited,
H. CUTHBERT HALL,
Managing Director.

For Marconi International Marine Communication Company, Limited,
H. CUTHBERT HALL,
Managing Director.

Witness—
JNO. HOLLAMS, Jr.
Solicitor,
Mincing Lane, E.C.

APPENDIX No. 4.

CONVENTION.

[TRANSLATION.]

INTERNATIONAL RADIOTELEGRAPHIC CONVENTION concluded between the Argentine Republic, Austria, Belgium, Brazil, Bulgaria, Chili, Denmark, France, Germany, Great Britain, Greece, Hungary, Italy, Japan, Mexico, Monaco, the Netherlands, Norway, Persia, Portugal, Roumania, Russia, Spain, Sweden, Turkey, the United States of America, and Uruguay.

The undersigned, Plenipotentiaries of the Governments of the countries enumerated above, being assembled in conference at Berlin, have, by common consent and subject to ratification, agreed to the following Convention :—

ARTICLE 1.

The High Contracting Parties undertake to apply the provisions of the present Convention at all radiotelegraph stations—coast stations and ship stations—open for the service of public correspondence between the land and ships at sea which are established or worked by the Contracting Parties.

They undertake, moreover, to impose the observance of these provisions upon private enterprises authorised either to establish or work radiotelegraph coast stations open for the service of public correspondence between the land and ships at sea, or to establish or work radiotelegraph stations, whether open for public correspondence or not, on board ships which carry their flag.

ARTICLE 2.

The term "Coast Station" means any radiotelegraph station which is established on land or on board a ship permanently moored, and which is used for the exchange of correspondence with ships at sea.

The term "Ship Station" means any radiotelegraph station established on board a ship which is not permanently moored.

ARTICLE 3.

Coast stations and ship stations are bound to exchange radiotelegrams reciprocally without regard to the particular system of radiotelegraphy adopted by these stations.

ARTICLE 4.

Notwithstanding the provisions of Article 2 a station may be appropriated to a service of public correspondence of a restricted character, determined by the object of the correspondence, or by other circumstances independent of the system employed.

ARTICLE 5.

Each of the High Contracting Parties undertakes to cause its coast stations to be connected with the telegraph system by means of special wires, or at least to take such other measures as will ensure an expeditious exchange of traffic between the coast stations and the telegraph system.

ARTICLE 6.

The High Contracting Parties shall acquaint one another mutually with the names of the coast stations and ship stations indicated in Article 1, as well as with all such particulars, proper for facilitating and accelerating the exchange of radiotelegrams, as shall be specified in the regulations.

ARTICLE 7.

Each of the High Contracting Parties reserves the right of prescribing or permitting the establishment and working, at the stations indicated in Article 1—independently of the installation of which particulars are published in accordance with Article 6—of other arrangements designed for radiotelegraphic transmission of a special character, without publishing the particulars of these arrangements.

ARTICLE 8.

The working of radiotelegraph stations shall be organised, as far as possible, in such a manner as not to interfere with the working of other stations of the kind.

ARTICLE 9.

Radiotelegraph stations are bound to accept with absolute priority calls of distress from ships, to answer such calls with similar priority, and to take the necessary steps with regard to them.

ARTICLE 10.

The total charge for radiotelegrams comprises :—

(1) The charge proper to the transmission over sea, viz. :—

(a) The "coast charge" which belongs to the coast station ;

b) The "ship charge" which belongs to the ship station.

(2) The charge for transmission over the lines of the telegraph system, calculated according to the general rules.

The rate of the coast charge is subject to the approval of the Government to whose authority the coast station is subject, and the rate of the ship charge to the approval of the Government whose flag the ship flies.

Each of these two charges shall be fixed according to a tariff per word pure and simple, with the option of fixing a minimum charge per telegram, on the basis of an equitable remuneration for the radiotelegraphic work. Each of these charges must not exceed a maximum to be fixed by the High Contracting Parties.

Nevertheless, each of the High Contracting Parties has the right to authorise charges exceeding this maximum in the case of stations of a range exceeding 800 kilometres, or of stations which are exceptionally costly by reason of the material conditions of their installation and working.

As regards radiotelegrams originating in or destined for a country with whose coast stations they are directly exchanged, the High Contracting Parties shall acquaint one another mutually with the charges applicable to transmission over the lines of their telegraph systems. The charges shall be those which follow from the principle that the coast station is to be regarded as the station of origin or of destination.

ARTICLE 11.

The provisions of the present Convention are completed by Regulations which have the same validity and come into force at the same time as the Convention.

The provisions of the present Convention and of the Regulations relative thereto may be modified at any time by the High Contracting Parties by common consent. Conferences of Plenipotentiaries or simple administrative Conferences, according as the Convention or the Regulations are in question, shall take place periodically; each Conference will itself fix the place and date of the following Conference.

ARTICLE 12.

These Conferences shall be composed of delegates of the Governments of the contracting countries.

In the deliberations, each country shall have one vote only.

If a Government adheres to the Convention for its Colonies, Possessions or Protectorates, subsequent Conferences may determine that the whole or a part of these Colonies, Possessions or Protectorates, is to be regarded as forming a Country for the purposes of the foregoing paragraph. But the number of votes which one Government, including its Colonies, Possessions or Protectorates, may exercise cannot exceed six.

ARTICLE 13.

An International Bureau shall be entrusted with the duty of collecting, arranging, and publishing information of every kind relative to radiotelegraphy; of circulating in proper form proposals for the modification of the Convention and Regulations; of notifying the alterations adopted, and generally, of carrying out any work bearing on matters of administration which may be assigned to it in the interests of international radiotelegraphy.

The expenses of this institution shall be borne by all the contracting countries.

ARTICLE 14.

Each of the High Contracting Parties reserves the right of prescribing the conditions on which it admits radiotelegrams from or to a station—whether ship or coast—which is not subject to the provisions of the present Convention.

If a radiotelegram is admitted, the ordinary charges must be applied to it.

Every radiotelegram originating at a ship station and received by a coast station of a contracting country, or accepted in transit by the Administration of a contracting country, must be sent forward.

Every radiotelegram intended for a ship must also be sent forward if the Administration of a contracting country has accepted it from the sender, or if the Administration of a contracting country has accepted it in transit from a non-contracting country, subject to the right of the coast station to refuse to transmit it to a ship station belonging to a non-contracting country.

ARTICLE 15.

The provisions of Articles 8 and 9 of this Convention are also applicable to radiotelegraph installations other than those indicated in Article 1.

ARTICLE 16.

Governments which have not taken part in the present Convention shall be allowed to adhere thereto on their request.

This adhesion shall be notified through the diplomatic channel to the contracting Government under whose auspices the last Conference has been held, and by it to all the others.

Adhesion involves as a matter of right acceptance of all the clauses of the present Convention and admission to all the advantages stipulated therein.

ARTICLE 17.

The provisions of Articles 1, 2, 3, 5, 6, 7, 8, 11, 12, and 17 of the International Telegraph Convention of St. Petersburg of the 10/22 July 1875 are applicable to international radiotelegraphy.

ARTICLE 18.

In case of difference between two or more of the Contracting Governments concerning the interpretation or execution of the present Convention or of the Regulations provided for in Article 11, the question at issue may, by common consent, be submitted to arbitration. In that event, each of the Governments concerned shall choose another not interested in the question.

The decision of the arbitrators shall be determined by an absolute majority of votes.

In the event of an equality of votes, the arbitrators shall choose, in order to settle the difference, another Contracting Government, also without interest in the question. In default of agreement as to this choice, each arbitrator shall propose another disinterested Contracting Government; and lots shall be drawn between the Governments proposed. The drawing of the lots appertains to the Government on whose territory the International Bureau provided for in Article 13 carries on its work.

ARTICLE 19.

The High Contracting Parties undertake to carry out or to propose to their respective Legislatures the measures necessary to ensure the execution of the present Convention.

ARTICLE 20.

The High Contracting Parties communicate to one another the laws which may have already been adopted or which may hereafter come into force in their countries relative to the subject matter of the present Convention.

ARTICLE 21.

The High Contracting Parties retain their full liberty concerning radiotelegraph installations not covered by Article 1, and in particular concerning naval and military installations, which are subject only to the obligations of Articles 8 and 9 of the present Convention.

Nevertheless, when these installations carry on public correspondence, they shall conform, for the performance of this service, to the stipulations of the Regulations so far as concerns the manner of transmission and the accounting.

ARTICLE 22.

The present Convention shall come into operation on and from the 1st July 1908, and shall remain in force for an indefinite period, or until the expiration of a year from the date of its denunciation.

Denunciation only takes effect as regards the Government in whose name it is made. The Convention shall remain in force as regards the other Contracting Parties.

ARTICLE 23.

The present Convention shall be ratified and the ratifications shall be deposited at Berlin with as little delay as possible.

In witness whereof the respective Plenipotentiaries have signed the Convention in a single copy, which will remain deposited in the archives of the Imperial German Government, and of which a copy will be sent to each Party.

Done at Berlin, the 3rd November 1906.

(Here follow the names of the Plenipotentiaries).

THE FOLLOWING ARE THE PROVISIONS OF THE INTERNATIONAL TELEGRAPH CONVENTION OF ST. PETERSBURG
REFERRED TO IN ARTICLE 17 OF THE RADIOTELEGRAPHIC CONVENTION.

ARTICLE 1.

The High Contracting Parties recognise the right of all persons to correspond by means of the international telegraphs.

ARTICLE 2.

They undertake to adopt all necessary measures to ensure the secrecy and prompt despatch of messages.

ARTICLE 3.

They, however, declare that they accept no responsibility on account of the service of international telegraphy.

ARTICLE 5.

Telegrams are classed in three categories :—

1. Government Telegrams : those which emanate from the Chief of the State, Ministers, Commanders-in-Chief of land and sea forces, and Diplomatic or Consular Agents of the Contracting Governments ; as well as the replies to such telegrams.

2. Service Telegrams : those which emanate from the Telegraph Administrations of the Contracting States, and which relate either to the international telegraph service or to objects of public interest agreed upon between the said Administrations.

3. Private Telegrams.

In transmission, Government telegrams take precedence of other telegrams.

ARTICLE 6.

Government and Service telegrams may be sent between all countries in secret language.

Private telegrams may be exchanged in secret language between two States which admit that class of correspondence.

States which do not admit private telegrams in secret language originating in, or destined for, their territory must allow them to pass in transit, unless the service be suspended, as defined in Article 8.

ARTICLE 7.

The High Contracting Parties reserve to themselves the right to stop the transmission of any private telegram which may appear dangerous to the security of the State, or which may be contrary to the laws of the country, to public order, or decency.

ARTICLE 8.

Each Government also reserves to itself the right to suspend the international telegraph service for an indefinite period, if it deem necessary, either generally or only upon certain lines and for certain classes of correspondence, upon condition that it immediately advises each of the other Contracting Governments.

ARTICLE 11.

Telegrams relating to the international telegraph service of the Contracting States are transmitted free over the entire system of the said States.

ARTICLE 12.

The High Contracting Parties shall reciprocally account for the charges which they respectively collect.

ARTICLE 17.

The High Contracting Parties reserve to themselves respectively the right to make separately, among themselves, special arrangements of any kind in matters of service which do not interest the Contracting States generally.

 ADDITIONAL UNDERTAKING.

The undersigned Plenipotentiaries of the Governments of the Argentine Republic, Austria, Belgium, Brazil, Bulgaria, Chili, Denmark, France, Germany, Greece, Hungary, Monaco, the Netherlands, Norway, Roumania, Russia, Spain, Sweden, Turkey, the United States of America, and Uruguay undertake to apply the provisions of the following additional Articles on and from the date on which the Convention comes into force :—

I.

Each ship station indicated in Article 1 of the Convention shall be bound to intercommunicate with every other ship station without regard to the particular system of radiotelegraphy adopted by these stations respectively.

II.

The Governments which have not adhered to the above Article may at any time make it known, by adopting the procedure indicated in Article 16 of the Convention, that they undertake to apply its provisions.

Those which have adhered to the above Article may at any time make known, under the conditions prescribed in Article 22 of the Convention, their intention of ceasing to apply its provisions.

III.

The present undertaking shall be ratified and the ratifications shall be deposited at Berlin with as little delay as possible.

In witness whereof the respective Plenipotentiaries have signed the present undertaking in a single copy, which will remain deposited in the archives of the Imperial German Government, and of which a copy will be sent to each Party.

Done at Berlin, the 3rd November 1906.

(Here follow the names of the Plenipotentiaries.)

 FINAL PROTOCOL.

At the moment of proceeding to the signature of the Convention adopted by the International Radiotelegraphic Conference of Berlin, the undersigned Plenipotentiaries have agreed as follows :—

I.

The High Contracting Parties agree that at the next Conference the number of votes which each country shall have (Article 12 of the Convention) shall be determined at the outset of the deliberations, so that the Colonies, Possessions, or Protectorates admitted to the enjoyment of votes may be able to exercise their right of voting throughout all the proceedings of that Conference.

The decision arrived at shall have immediate effect, and shall remain in force until it is varied by a later Conference.

So far as the next Conference is concerned, proposals for the admission of new votes in favour of the Colonies, Possessions, or Protectorates which may have adhered to the Convention shall be addressed to the International Bureau six months at least before the date of meeting of that Conference. These proposals shall immediately be notified to the other Contracting Governments, which may, within a period of two months from the receipt of the notification, put forward similar proposals.

II.

Each Contracting Government may reserve the power of designating, according to circumstances, certain coast stations which shall be exempt from the obligation imposed by Article 3 of the Convention, on condition that, on and from the application of this provision, there shall be open on its territory one or more stations subject to the obligations of Article 3 and providing for the radiotelegraphic service in the region served by the exempted stations in such a manner as to satisfy the requirements of public correspondence. The Governments which wish to reserve this power must notify their desire in the form prescribed in the second paragraph of Article 16 of the Convention, not later than three months before the Convention comes into operation, or, in the case of later adhesions, at the moment of adhesion.

The countries whose names appear below declare, at once, that they will not reserve this power :—

Argentine Republic
Austria
Belgium
Brazil
Bulgaria
Chili

Germany
Greece
Hungary
Mexico
Monaco
Netherlands

Norway
Roumania
Russia
Sweden
United States of America
Uruguay.

III.

The manner of carrying out the provisions of the preceeding Article is left to the Government which avails itself of the right of exemption; this Government has full liberty to decide, from time to time, according to its own judgement, how many and what stations shall be exempted. This Government has the same liberty in regard to the manner of carrying out the condition relative to the keeping open of other stations subject to the obligations of Article 3 and providing for the radiotelegraphic service in the region served by the exempted stations in such a manner as to satisfy the requirements of public correspondence.

IV.

It is understood that, in order that scientific progress may not be impeded, the provisions of Article 3 of the Convention do not prevent the possible use of a system of radiotelegraphy incapable of communicating with other systems, provided always that this incapacity is due to the specific nature of the system, and is not the result of arrangements adopted solely with a view to prevent intercommunication.

V.

The adhesion to the Convention of the Government of a country having Colonies, Possessions, or Protectorates does not imply the adhesion of its Colonies, Possessions, or Protectorates in the absence of a declaration to that effect on the part of such Government. A separate adhesion or a separate denunciation may be made in respect of the whole of such Colonies, Possessions, or Protectorates, taken together, or in respect of each of them separately, under the conditions laid down in Articles 16 and 22 of the Convention.

It is understood that stations on board ships having their port of registry in a Colony, Possession, or Protectorate may be deemed to be subject to the authority of such Colony, Possession, or Protectorate.

VI.

Note has been taken of the following declaration :—

The Italian delegation, while signing the Convention, must nevertheless make the reservation that the Convention can only be ratified by Italy at the date of expiration of its contracts with Mr. Marconi and his Company, or at an earlier date if the Italian Government is able to arrange accordingly by negotiation with Mr. Marconi and his Company.

VII.

The Convention, in the event of one or more of the High Contracting Parties not ratifying it, shall be none the less valid for the Parties which shall have ratified it.

In witness whereof, the undermentioned Plenipotentiaries have drawn up the present Final Protocol, which shall have the same force and the same validity as if its provisions were inserted in the actual text of the Convention to which it relates, and they have signed it in a single copy, which will remain deposited in the archives of the Imperial German Government, and of which a copy will be sent to each Party.

Done at Berlin, the 3rd November 1906.

(Here follow the names of the Plenipotentiaries.)

SERVICE REGULATIONS.

SERVICE REGULATIONS ANNEXED TO THE INTERNATIONAL RADIOTELEGRAPHIC CONVENTION.

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1. ORGANISATION OF RADIOTELEGRAPH STATIONS.

I.

The choice of the radiotelegraphic apparatus and arrangements to be used by coast stations and ship stations is unrestricted. The installation of these stations must keep pace as far as possible with scientific and technical progress.

II.

Two wave-lengths, one of 300 and the other of 600 metres, are allowed for general public correspondence. Every coast station open for this service employs one or other of these two wave lengths. During the whole period for which it is open for service, every station must be in a position to receive calls made by means of its own wave-length, and it must not make use of any other wave-length for the service of general public correspondence. Nevertheless, each Government may authorise the use at any coast station of other wave-lengths for the purpose of providing a long-distance service, or a service other than that of general public correspondence, established in accordance with the provisions of the Convention, on condition that these wave-lengths do not exceed 600 metres or do exceed 1,600 metres.

III.

1. The normal wave-length for ship stations is 300 metres. Every ship station must be installed in such a way as to be capable of using this wave-length. Other wave-lengths may be used by these stations on condition that they do not exceed 600 metres.

2. Ships of small tonnage, which it would be materially impossible to equip with plant producing a wave-length of 300 metres, may be authorised to use a shorter wave-length.

IV.

1. By the agency of the International Bureau, a list shall be prepared of the radiotelegraph stations indicated in Article 1 of the Convention. This list shall give the following particulars regarding each station:—

- (i) Name, nationality, and geographical position in the case of coast stations; name, nationality, distinguishing signal under the International Code and indication of the ship's port of registry, in the case of ship stations;
- (ii) Call-signal (the call-signals must be distinguished from one another and must each be composed of a group of three letters);
- (iii) Normal range;
- (iv) System of radiotelegraphy;
- (v) Nature of receiving apparatus (recording, sound-reading, or other apparatus);
- (vi) Wave-lengths used by the station (the normal wave-length is under-lined);
- (vii) Nature of the service performed by the station:—

General public correspondence;

Restricted public correspondence (correspondence with the ships ; correspondence with the shipping lines ; correspondence with ships equipped with apparatus of the system; &c.);

Long-distance public correspondence;

Private correspondence of the owners of the station;

Special correspondence (correspondence of an exclusive official nature ;

&c.;

(viii) Hours of service;

(ix) Coast or ship charge.

2. The list shall also comprise such particulars with regard to radiotelegraph stations other than those indicated in Article 1 of the Convention as are communicated to the International Bureau by the Administration to whose authority these stations are subject.

V.

The stations indicated in Article 1 of the Convention are prohibited from exchanging superfluous signals and words. Trials and practice are only permitted at these stations in so far as they do not interfere with the service of other stations.

VI.

1. No ship station may be established or worked by any private enterprise without the authorisation of the Government to whose authority the ship is subject. This authorisation is given by a licence issued by that Government.

2. Every ship station which is authorised must satisfy the following conditions:—

- (a) The system used must be a syntonised system;
- (b) The speed of transmission and reception must, in normal circumstances, not be less than 12 words a minute, five letters being counted as one word;
- (c) The power imparted to the radiotelegraphic apparatus must not, in normal circumstances exceed one kilowatt. Power in excess of one kilowatt may be used if the ship finds it necessary to exchange messages at a distance of more than 300 kilometres from the nearest coast station, or if, by reason of intervening obstacles, communication can only be effected by an increase of power.

3. The service of the ship station must be carried on by a telegraphist holding a certificate issued by the Government to whose authority the ship is subject. This certificate testifies to the technical proficiency of the telegraphist as regards—

- (a) The adjustment of apparatus;
- (b) Transmission and sound-reading at a speed which must not fall short of 20 words a minute;
- (c) Knowledge of the regulations applicable to the exchange of radiotelegraphic traffic.

4. In addition, the certificate testifies that the Government has bound the telegraphist to the obligation of preserving the secrecy of correspondence.

VII.

1. If an Administration has information of a breach of the Convention or of the Regulations committed at one of the stations which it has authorised, it shall verify the facts and fix the responsibility.

In the case of ship stations, if the responsibility falls on the telegraphist, the Administration shall take the necessary steps, and, if need be, withdraw his certificate. If it is proved that the breach was due to the condition of the apparatus, or to instructions given to the telegraphist, similar steps shall be taken with regard to the licence granted to the ship.

2. In the event of repeated breaches by the same ship, if the representations made to the Administration to whose authority the ship is subject by another Administration remain without effect, the latter is empowered, after giving notice, to authorise its coast stations to refute communications from the ship in question. In case of difference between the two Administrations, the question shall be submitted to arbitration at the instance of one of the Governments in question. The procedure followed shall be that indicated in Article 18 of the Convention.

2. DURATION OF SERVICE AT COAST STATIONS.

VIII.

1. The service at coast stations is, as far as possible, permanent, day and night, without interruption. Nevertheless, certain coast stations may provide a service of limited duration. Each Administration fixes the hours of service.

2. Those coast stations at which the service is not permanent must not close before they have transmitted all their radiotelegrams to such ships as are within their range of transmission, and have received from these ships all the radiotelegrams of which notice has been given. This provision applies also when ships notify their presence before work has actually ceased.

3. FORM AND ACCEPTANCE OF RADIOTELEGRAMS.

IX.

If part of the route followed by a radiotelegram lies over telegraph lines or through radiotelegraph stations belonging to a non-contracting country, the radiotelegram may be forwarded on condition that the Administrations of the countries to which these lines or stations belong have at the least declared their willingness to apply, when occasion arises, those provisions of the Convention and Regulations which are essential for the proper disposal of radiotelegrams, and provided also that adequate arrangements are made for accounting.

X.

1. Radiotelegrams bear the service instruction "Radio" in the preamble.

2. In the transmission of radiotelegrams from ship stations to coast stations the date and the time of handing in are omitted from the preamble.

On re-transmission over the ordinary telegraph system, the coast station inserts, as the indication of the office of origin, its own name followed by that of the ship, and gives, as the time of handing in, the time of receipt.

XI.

The address of radiotelegrams for ships at sea should be as complete as possible. It must contain the following:—

(a) Name of addressee, with further particulars, if necessary.

(b) Name of ship as it appears in the list, supplemented, in the case of ships bearing the same name, by the nationality of the ship, and, if necessary, its distinguishing signal under the International Code.

(c) Name of coast station as it appears in the list.

4 CHARGES.

XII.

The coast charge must not exceed 60 centimes a word, nor the ship charge 40 centimes a word.

A minimum not exceeding the coast charge or the ship charge for a radiotelegram of 10 words may be fixed either for the coast charge or for the ship charge.

XIII.

A country on whose territory a coast station is established which serves as a medium for the exchange of radio telegram between a ship station and another country is considered, for the purpose of applying the telegraph rates, as the country of origin or of destination of those radiotelegrams and not as a country of transit.

5. COLLECTION OF CHARGES.

XIV.

The whole charge for radiotelegrams is collected from the sender.

For this purpose ship stations must have the necessary tariffs. Nevertheless they have the right to obtain information from coast stations with regard to the assessment of the charge for radiotelegrams in respect of which they do not possess all the requisite particulars.

6. TRANSMISSION OF RADIOTELEGRAMS.

a. Signals.

XV.

The Signals used are those of the International Morse Code.

XVI.

Ships in distress make use of the following signal :—

• • • — — — • • •

repeated at short intervals.

As soon as a station perceives the signal of distress it must suspend all correspondence and must not resume work until it has made sure that the communication consequent upon the call for assistance has been completed.

When a ship in distress adds, after a series of signals of distress, the call-signal of a particular station, the duty of answering the call rests with that station only. Failing any mention of a particular station in the signal of distress every station which perceives the call is bound to answer it.

XVII.

1. The call-signal followed by the letters • — — • • — — • • • “PRB” signifies that the ship or the station making the call wishes to communicate with the station called by means of the International Code of Signals.

The combination of the letters “PRB” is prohibited, as a service signal, for any other purpose than that above indicated.

2. The International Code of Signals may be used for radiotelegrams.

Those which are addressed to a radiotelegraph station for onward transmission are not translated by that station.

b. Order of Transmission.

XVIII.

Between two stations radiotelegrams of the same rank are transmitted separately in alternate order or in series consisting of several radiotelegrams, as may be determined by the coast station, provided that the time occupied in the transmission of any one series does not exceed twenty minutes.

c. Calling of Radiotelegraph Stations and Transmission of Radiotelegrams.

XIX.

1. As a general rule, it is the ship station which calls the coast station.

2. The call must only be made, as a general rule, when the distance of the ship from the coast station is less than 75 per cent. of the normal range of the latter.

3. Before beginning to call, the ship station must adjust its receiving apparatus to the highest possible degree of sensitiveness and make sure that the coast station which it wishes to call is not engaged in communication. If it finds that transmission is taking place it awaits the first break.

4. The ship station uses, for calling purposes, the normal wave-length of the coast station.

5. If in spite of these precautions the exchange of public radiotelegraphic traffic is interfered with, the call must cease at the first request made by a coast station open for public correspondence. This station must then indicate approximately how long it will be necessary to wait.

XX.

1. The call comprises the signal — • — • —, the call-signal of the coast station thrice repeated, the word “de” followed by the call-signal of the transmitting station thrice repeated.

2. The station called answers by giving the signal — • — • —, followed by the call-signal of the calling station thrice repeated, by the word “de”, by its own-signal call, and by the signal — • —.

XXI.

If a station called does not reply as the result of the call (Article XX.) thrice repeated at intervals of two minutes, the call can only be renewed after an interval of half-an-hour, the station making the call having first ascertained that no radiotelegraphic communication is in progress.

XXII.

1. As soon as the coast station has answered, the ship station makes known—

- (a) The distance of the ship from the coast station in nautical miles.
- (b) Its true bearings in degrees reckoned from 0 to 360.
- (c) Its true course in degrees reckoned from 0 to 360.
- (d) Its speed in nautical miles.
- (e) The number of words which it has to transmit.

2. The coast station replies by indicating the number of words which it has to transmit to the ship.

3. If transmission cannot take place at once the coast station informs the ship station approximately how long it will be necessary to wait.

XXIII.

When a coast station receives calls from several ship stations, the coast station decides the order in which the ship stations shall be allowed to transmit their correspondence.

The sole consideration which must govern the coast station in settling this order is the necessity of allowing every station concerned to exchange the greatest possible number of radiotelegrams.

XXIV.

Before beginning the exchange of correspondence the coast station informs the ship station whether transmission is to take place in alternate order or in series (Article XVIII.); it then begins transmission or follows up these service instructions with the signal — • — (invitation to transmit).

XXV.

The transmission of a radiotelegram is preceded by the signal $\text{---} \cdot \text{---} \cdot \text{---}$ and terminated by the signal $\cdot \text{---} \cdot \text{---} \cdot$, followed by the call-signal of the transmitting station.

XXVI.

When the radiotelegram to be transmitted contains more than 40 words the transmitting station interrupts transmission after each series of about 20 words with a mark of interrogation $\cdot \text{---} \text{---} \cdot \cdot$, and only continues transmission after having obtained from the receiving station the repetition of the last word duly received, followed by a mark of interrogation.

In the case of transmission by series, an acknowledgment of receipt is given after each radiotelegram.

XXVII.

1. When the signals become doubtful, it is important that recourse should be had to all possible means for effecting transmission. For this purpose the radiotelegram is repeated, at the request of the receiving station, but not more than three times. If, in spite of this triple transmission, the signals are still unreadable, the radiotelegram is cancelled. If an acknowledgment of receipt is not received the transmitting station again calls the receiving station. If no reply is made after three calls, transmission is not continued.

2. If the receiving station, in spite of defective reception, thinks that the radiotelegram may be delivered, it inserts the service instruction "Reception doubtful" at the end of the preamble and sends on the radiotelegram.

XXVIII.

All stations are bound to exchange traffic with the minimum expenditure of energy required for obtaining effective communication.

d. Acknowledgment of Receipt and End of Work.

XXIX.

1. The acknowledgment of receipt is given in the form prescribed by the International Telegraph Regulations preceded by the call-signal of the transmitting station and followed by the call-signal of the receiving station.

The end of work between two stations is indicated by each station by means of the signal $\cdot \cdot \cdot \text{---} \cdot \text{---}$ followed by its call-signal.

e. Route to be followed by Radiotelegrams.

XXX.

1. As a general principle, the ship station transmits its radiotelegrams to the nearest coast station.

2. Nevertheless, a sender on board ship is at liberty to indicate the coast station by which he desires his radiotelegram to be despatched.

The ship station then waits until this coast station becomes the nearest. If this condition cannot be fulfilled, the sender's wishes are only complied with if transmission can be effected without interfering with the service of other stations.

7. DELIVERY OF RADIOTELEGRAMS.

XXXI.

When for any reason whatever a radiotelegram from a ship at sea cannot be delivered to the addressee, an advice of non-delivery is sent. This advice is transmitted, if possible, to the ship. When a radiotelegram reaching a ship station cannot be delivered, that station informs the office of origin by means of a service advice. This advice is transmitted, as far as possible, to the coast station through which the radiotelegram has been received, or, if the circumstances require it, to the nearest coast station.

XXXII.

If the ship to which a radiotelegram is addressed has not notified its presence to the coast station within the period indicated by the sender, or, failing such indication, before the morning of the 29th day, the coast station advises the sender to that effect.

The latter has the right to request, by a paid telegraphic or postal service message addressed to the coast station, that his radiotelegram may be retained for a further period of 30 days for transmission to the ship, and so on. Failing a request to this effect, the radiotelegram is treated as undeliverable at the end of the 30th day (the day of handing in not included).

Nevertheless, if the coast station knows that the ship has passed beyond its range of transmission before the radiotelegram could be transmitted to it, that station advises the sender accordingly.

8. SPECIAL TELEGRAMS.

XXXIII.

The following are not admitted :—

- (a) Telegrams with prepaid replies.
- (b) Telegraph Money Orders.
- (c) Collated telegrams.
- (d) Telegrams with acknowledgment of receipt.
- (e) Telegrams "to follow."
- (f) Paid service telegrams, except as regards transmission over the ordinary telegraph system.
- (g) Urgent telegrams, except as regards transmission over the ordinary telegraph system, subject to the provisions of the International Telegraph Regulations.
- (h) Telegrams to be delivered by express or by post.

9. RECORDS.

XXXIV.

The originals of radiotelegrams and the documents relating to them retained by the Administrations or private enterprises are preserved for at least 12 months, reckoned from the month following that of handing in, with all necessary precautions to secure secrecy.

These originals and documents are, as far as possible, sent at least once a month by ship stations to the Administrations to whose authority they are subject.

10. REFUNDS AND REIMBURSEMENTS.

XXXV.

1. Refunds and reimbursements are governed by the provisions of the International Telegraph Regulations, regard being had to the restrictions indicated in Article XXXIII. of the present Regulations and subject to the following reservations:—

The time occupied in transmission by radiotelegraphy and the time during which the radiotelegram remains at the coast station or at the ship station are not reckoned towards the periods of delay which give rise to refunds and reimbursements.

The reimbursement is borne by the different Administrations or private enterprises which have taken part in the transmission of the radiotelegram, each Administration foregoing its proportion of the charge. Nevertheless, radiotelegrams which come under Articles 7 and 8 of the Convention of St. Petersburg remain subject to the provisions of the International Telegraph Regulations, except when it is due to an error of service that such radiotelegrams have been accepted.

2. When the acknowledgment of receipt of a radiotelegram has not reached the station which transmitted the radiotelegram, the charge is only refunded after it has been proved that the radiotelegram is one which gives rise to reimbursement.

11. ACCOUNTS.

XXXVI.

1. The coast and ship charges do not enter into the accounts for which provision is made in the International Telegraph Regulations.

The Accounts relating to these charges are settled by the Administrations of the Governments concerned. They are prepared by the Administrations responsible for the coast stations and are communicated by them to the Administrations concerned.

2. In respect of transmission over the ordinary telegraph system a radiotelegram is treated, for accounting purposes, in accordance with the International Telegraph Regulations.

3. In respect of radiotelegrams from ships, the Administration responsible for the ship station is debited by the Administration responsible for the coast station with the coast and ordinary telegraph charges collected on board the ship.

In respect of radiotelegrams addressed to ships, the Administration which has collected the charges is debited directly by the Administration responsible for the coast station with the coast and ship charges. The latter Administration credits the Administration responsible for the ship with the ship charge.

Nevertheless, in cases where the Administration which has collected the charges is that responsible for the ship station, the ship charge is not debited by the Administration responsible for the coast station.

4. The monthly accounts on which the special accounting in respect of radiotelegrams is based are prepared radiotelegram by radiotelegram, with all the necessary particulars, within six months from the month to which they relate.

5. The Governments reserve the right of making between themselves and in their dealings with private enterprises (organisations working radiotelegraph stations, shipping companies, &c.) special arrangements for the adoption of other methods of accounting.

12. INTERNATIONAL BUREAU.

XXXVII.

The International Bureau of Telegraph Administrations will be entrusted, subject to the consent of the Government of the Swiss Confederation and to the approval of the Telegraph Union, with the functions specified in Article 13 of the Convention.

The additional expenses resulting from the exercise by the International Bureau of its functions in respect of radiotelegraphy must not exceed 40,000 francs per annum, not including extraordinary expenditure occasioned by the assembling of an International Conference.

These expenses form the subject of a special account, and the provisions of the International Telegraph Regulations are applicable to them. Nevertheless, pending the meeting of the next Conference, each contracting Government shall notify to the International Bureau the class in which it wishes to be included.

XXXVIII.

The various Administrations shall supply the International Bureau with a Return in conformity with the annexed model, containing the particulars specified therein in respect of the stations indicated in Article IV. of the Regulations. Subsequent modifications and additions shall be communicated by the Administrations to the International Bureau between the 1st and 10th of each month. By means of the information thus communicated the International Bureau shall prepare a list and keep it up to date. The list and its supplements shall be printed and distributed to the Administrations concerned; they may also be sold to the public at cost price.

The International Bureau shall take care that the same call-signals are not adopted for different radiotelegraph stations.

13. MISCELLANEOUS PROVISIONS.

XXXIX.

The Administration shall facilitate arrangements for communicating to such maritime news agencies as they think fit such information respecting wrecks and shipping casualties, or of general interest for purposes of navigation, as can properly be communicated to them by their coast stations.

XL.

Traffic exchange between the ship stations indicated in Article 1 of the Convention must be so regulated as not to interfere with the service of coast stations, the latter being entitled as a general rule to priority for purposes of public correspondence.

XLI.

1. In the absence of special arrangements between the parties concerned, the provisions of the present regulations are applicable, by analogy, to the exchange of radiotelegraphic traffic between two ships at sea, with the following exceptions :—

- (a) *Article XIV.*—The ship charge accruing to the transmitting ship is collected from the sender, and that accruing to the receiving ship is collected from the addressee.
- (b) *Article XVIII.*—The order of transmission is settled on each occasion by mutual agreement between the communicating stations.
- (c) *Article XXXVI.*—The charges in respect of the radiotelegrams in question do not enter into the accounts provided for in Article XXXVI, these charges being retained by the Administrations which have collected them.

2. The retransmission of radiotelegrams exchanged between ships at sea is subject to special arrangements between the parties concerned.

XLII.

The provisions of the International Telegraph Regulations are applicable, by analogy, to radiotelegraphic correspondence in so far as they are not inconsistent with the provisions of the present Regulations.

In conformity with Article 11 of the Convention of Berlin, these Regulations will come into force on the 1st July, 1908.

In witness whereof the respective Plenipotentiaries have signed the Regulations in a single copy, which will remain deposited in the archives of the Imperial German Government, and of which a copy will be sent to each Party.

Done at Berlin, the 3rd November, 1906.

(Here follow the names of the Plenipotentiaries)

APPENDIX No. 5.

CORRESPONDENCE between the Colonial Office and the Self-governing Colonies with regard to the Draft Convention, &c.

Colonial Office to the Governors of Australia, Canada, New Zealand, Cape of Good Hope, Natal, and Newfoundland.

MY LORD,
SIR,

Downing Street,
January 12th, 1905.

I have the honour to transmit to you, to be laid before your Ministers, two copies of a Draft Convention which is to be considered at an International Conference on Wireless Telegraphy which will probably meet in Berlin in June next.

I have to state that His Majesty's Government has not yet finally settled the instructions to be given to the British delegates to the Conference, but the Colony under your Government will of course not be committed to any Convention that may be finally adopted without the previous consent of your Government.

In the meantime, if your Government desires to make any observations on the provisions of the Draft Convention, I shall be glad to receive them at an early date.

I have, &c.,
Alfred Lyttelton.

The Officers Administering the
Governments of Commonwealth of
Australia, Canada, New Zealand, the
Cape of Good Hope, Natal, Newfoundland.

Governor of Newfoundland to Colonial Office.

Government House, St. John's,
February 20th, 1905.

SIR,
With reference to your Despatch of 12th January, 1905, covering the draft of a Convention to be considered at an International Conference on Wireless Telegraphy, I have the honour to inform you that my Ministers have no observations to offer in the matter. They have been pleased to learn that the Colony will not be committed without its consent to any Convention that may be adopted with reference to this subject.

I have, &c.
Wm. Macgregor

The Right Honourable
Alfred Lyttelton, K.C., M.P., &c.

Extract from a Report of the Committee of the Honourable the Privy Council of Canada, approved by His Excellency the Governor-General, February 28th, 1905.

The Committee of the Privy Council have had under consideration a Despatch, dated 12th January, 1905, from the Right Honourable the Secretary of State for the Colonies, transmitting copies of a Draft Convention which is to be considered at an International Conference on Wireless Telegraphy, which will probably meet in Berlin in June 1905.

The Minister of Marine and Fisheries, to whom the said despatch was referred, states that the Canadian Government highly appreciates the action of His Majesty's Government in referring the Draft Convention to them for an expression of their views thereon, and that, having carefully considered the provisions, they do not desire to suggest any amendments.

The Committee advise that His Excellency the Governor-General be moved to forward a copy of this Minute to the Right Honourable the Secretary of State for the Colonies.

All which is respectfully submitted for approval.

(Signed) *John J. McGee,*
Clerk of the Privy Council.

Governor of Natal to Colonial Office.

King's House, Durban, Natal,
February 27th, 1905,

SIR,

With reference to your Despatch of the 12th ultimo, transmitting copies of a Draft Convention which is to be considered at an International Conference on Wireless Telegraphy to be held in Berlin, I have the honour to inform you that the Regulations contained therein appear to my Ministers satisfactory.

I have, &c.,

Henry McCallum.

The Right Honourable
The Secretary of State for the Colonies.

Ministers of Cape of Good Hope to Governor.

Prime Minister's Office, Cape Town,
February 28th, 1905.

With reference to His Excellency the Governor's Minute dated 31st ultimo, transmitting copy of a Despatch from the Right Honourable the Secretary of State for the Colonies in regard to the International Conference to be held on Wireless Telegraphy, Ministers have the honour to state that the Draft Convention and Regulations have been duly considered, and they appear to meet almost every difficulty which may arise in practical working of the wireless telegraphy system.

The only amendment which Ministers desire to suggest at the present time is that the provisions of Clause 31 of the detailed regulations should permit of the original copies of telegrams being posted from the nearest post office instead of being sent to the Telegraph Administration through the charterers at the port of origin, when the ship or packet returns to that port. For accounting and audit purposes the charterers should, of course, have access to any telegrams which may be sent by post direct to the Telegraph Administration.

Ministers will be glad to be favoured in due course with the report of the deliberations of the Conference at Berlin, as, in view of the prospective establishment of wireless stations in this Colony, early information is of importance.

(Signed *T. W. Smartt.*)

Governor of New Zealand to Colonial Office.

SIR,

Wellington, August 10th, 1905.

I have the honour to acknowledge the receipt of your Despatch of the 12th January last, concerning the International Conference on Wireless Telegraphy which was to have met in Berlin last June.

With reference to the third paragraph of your despatch, my Ministers state that they have no observations to offer for the consideration of the Conference, and they desire me to convey to you their regrets for the oversight by which this reply has been so long delayed.

I have, &c.

The Right Honourable
Alfred Lyttelton, K.C., M.P., &c., &c.,
Secretary of State for the Colonies.

Plunket,
Governor.

No answer was received from the Australian Government.

APPENDIX No. 6.

PAPER handed in by *Mr. Cuthbert Hall*.

(See Question 1316.)

ANALYSIS.

The figure of 40, quoted as the number of coast stations at which it is claimed that a public telegraph service for communication with ships at sea by means of wireless telegraph apparatus is being carried on by systems other than the Marconi, is incorrect. The figure purported to relate to coast stations, but on examination is found to have included a number of coasting vessels which are said to be equipped with wireless telegraph apparatus of other systems.

The Western Union Tariff Book announces that it collects rates for wireless telegraph messages transmitted through the following commercial stations (not equipped by the Marconi Company) :—

Wilson Point, U.S.A.
Key West, U.S.A.
Hatteras, U.S.A.
Galveston, U.S.A.
Mobile, U.S.A.

and through the following Naval stations :—

Norfolk, U.S.A.
Havannah, Cuba.
Cape Henry, U.S.A.
Jupiter (Florida), U.S.A.
Drytortugas, U.S.A.

One hundred of the commercial stations of other systems, mentioned in Mr. Gavey's list (Appendix 1), in the United Kingdom, Holland, Roumania, Spain, Tripoli, Mexico, Central America and West Indies, Brazil, Peru, Uruguay, China, India and Burma, Turkey, Malaysia and Polynesia, are not connected with the inland telegraph systems, and carrying on any public telegraph service with ships of the Mercantile Marine.

A protest was made in the French press, and in the French Chamber of Deputies, against the announcement that the two stations in France were connected to the inland telegraph system and available for communication with ships of the mercantile marine, on the ground that all the ships equipped carried Marconi apparatus which did not communicate with these stations, and that messages were only transmitted as far as the coast stations and subsequently returned to the senders with the land-line rates deducted.

We have no information with regard to the twelve commercial stations of other systems said to exist in Germany, or with regard to the two said to exist in Norway. The principal German Liners, however, carry Marconi apparatus, and no commercial service is carried on between the German coast stations and those liners.

APPENDIX No. 7.

PAPER handed in by Mr. J. Gavey, C.B., on the 18th April, 1907.

WIRELESS TELEGRAPH STATIONS.

COUNTRY.	Commercial.		Non-commercial.		REMARKS.	
	Marconi System.	Other Systems.	Marconi System.	Other Systems.		
EUROPE:						
United Kingdom - - -	19	4	21*	4	*Including 2 at Gibraltar and 1 at Malta.	
Austria Hungary - - -	—	—	—	2		
Belgium - - - - -	1	—	—	—		
Denmark - - - - -	—	—	—	6		
France - - - - -	—	2	—	8		
Germany - - - - -	—	12	—	9		
Holland - - - - -	—	1	—	2		
Italy - - - - -	14	—	11	—		
Montenegro - - - - -	1	—	—	—		
Norway - - - - -	—	2	—	2		
Portugal - - - - -	—	—	—	1		
Roumania - - - - -	—	1	—	—		
Russia - - - - -	—	—	—	23†	†Including 1 at Vladivostock.	
Spain - - - - -	—	2	—	3		
Sweden - - - - -	—	—	—	2		
AFRICA:						
Egypt - - - - -	2	—	—	—	(NOTE.—Between 80 and 90 ships of the Mercantile Marine of various nationalities are equipped with Marconi apparatus, and between 70 and 80 with non-Marconi apparatus. Battleships fitted with wireless telegraph apparatus are not included in this list).	
Morocco - - - - -	—	—	—	1		
Senegal - - - - -	—	—	—	2		
Tripoli - - - - -	—	1	—	—		
Tunis - - - - -	—	—	—	1		
NORTH AMERICA:						
Alaska - - - - -	—	—	—	2		
Canada - - - - -	21	—	—	—		
Mexico - - - - -	—	2	—	—		
United States - - -	5	65	—	10		
CENTRAL AMERICA AND WEST INDIES - - - - -						
INDIES - - - - -	—	11	—	—		
SOUTH AMERICA:						
Argentine Republic - - -	—	—	—	3		
Brazil - - - - -	—	1	—	3		
Peru - - - - -	—	2	—	—		
Uruguay - - - - -	—	1	—	—		
ASIA:						
China - - - - -	—	1	3	—		
Cochin China - - - - -	—	—	—	1		
Corea - - - - -	—	—	—	5		
India and Burma - - - -	—	4	—	1		
Japan - - - - -	—	—	—	13		
Manchuria - - - - -	—	—	—	2		
Turkey - - - - -	—	1	—	—	(Asia Minor.)	
MALAYSIA AND POLYNESIA - - -						
(Philippine, Sandwich, Ladrone and Samoa Islands).	—	10	—	2		
TOTAL - - - -	63	123	35	108	329 Stations.	

Marconi system - - - - - 98

Other systems - - - - - 231

Experimental, proposed and "doubtful" stations are not included in above list.

APPENDIX No. 8.

MEMORANDA by Sir Oliver Lodge.

I.

13 May 1907.

The elementary notion of "amplitude," *i.e.*, vigour or intensity or energy (in sound, loudness, and in light brightness), has been introduced in rather a confusing fashion, as if it were a new idea. It is not true to say that tuning depends on it. Tuning depends on wave-length, and on there being a sufficient succession of similar waves to enable the tuned vibrator to respond by gradually getting up swing. If, instead of distributing the energy over a number of oscillations, it is all concentrated in one—in what, in my evidence, I called a "whip-crack"—then there can be no tuning.

This is, I suppose, what Mr. Marconi meant by the importance of amplitude, but it was a foggy way to speak of an obvious truth.

The Convention, I believe, intended to regulate the two factors, "wave-length" and "power."

There might be some ambiguity about "power," for it would be possible, instead of emitting the power regularly to store it up for a time and then release the accumulated energy in one great "bang." (But such a method would liberate, for the time, excessive power; and moreover it cannot be attuned.)

To some extent this is done in the whip-crack plan, and perhaps the Convention does not as yet exclude it. But in so far as the present regulations are too few, that fact should not be objected to by those who wish to make them none. It is better to err in defect than in excess. To cover extreme cases, supplementary regulations will doubtless be required from time to time.

One element, I believe, may soon require specific attention, namely, the height of the emitter above the earth. The same power will carry much further when isolated and elevated well above the ground, and the higher the further—within limits.

I did not mention this in my evidence, because I did not think you wanted to improve, or add to, the regulations of the Conventions, but that you rather aimed at considering whether they could reasonably be adopted, as an initial working scheme, to be amended from time to time.

Moreover, the practical elevation attainable on ships is naturally limited, unless kites or such like implements are used.

By the way, I notice that Professor Fleming spoke of Lodge-Muirhead non-connection with earth as if it were a mere evasion of Marconi's plan of earth connection; saying that I had pointed out that indirect connection through a large condenser would do as well. I repudiate that; I never pointed out anything of the kind. We employ the old Hertz radiator of 1888, *et. seq.*; and the neighbourhood of the earth is only a nuisance which we would dispense with if we could.

Oliver Lodge.

II.

24 May 1907.

Professor Fleming's written statement, accepted by the Committee, incidentally makes some comments and criticisms on my evidence, which I can hardly pass over in silence, if the Chairman will allow me a brief reply.

As Scientific Adviser to the Marconi Co., Professor Fleming naturally regards things from their point of view, and emphasises Mr. Marconi's claim to public recognition. But such recognition has surely been fully accorded on all hands; so that whereas Hertz is comparatively an unknown name, except in scientific circles, the name of Marconi is famous all over the world.

The energetic and efficient way in which, since 1896, he has pressed forward to the practicability of the telegraphic application of Hertz waves, and towards increasing their efficiency and range of action, with the greatest pertinacity and success, have been admirable; and I have never failed to recognise the fact.

But in saying this I do not thereby mean to express admiration of his 1896 patent. On the contrary (acting doubtless under legal advice), he has there claimed a multitude of things that were well-known at that date; indeed it is difficult to point to any novelty in that patent, unless it be the lofty wire and the earth connection—both of which however have been claimed by others. A general claim for *antennæ* can certainly not be maintained, because they had been used all along as collectors of the waves.

A legitimate distinction may be drawn between actual commercial telegraphy, and mere signalling at a distance, by means of Hertzian waves—such as I exhibited; but the distinction is not of a fundamental character, it is like the difference between a working model engine on the one hand, and a steam engine on the same plan, of considerable power, on the other.

Moreover, the engine of considerable power was of gradual growth. Mr. Marconi's arrangements were by no means perfect in 1896; and it is not surprising that the attention of many was directed, by the interest aroused by his experiments and claims, to improving and to attaining trustworthiness in this at first capricious and troublesome method of signalling. It has been a long and arduous process, and it has been attained in several manners by different people.

In this work and throughout I have never had any but friendly feelings for Mr. Marconi personally, and I believe that they are reciprocated. But unfortunately the company's scientific adviser, Professor Fleming, thinks it proper, in his written statement, to make the following accusation:—

"On being pressed in cross-examination (Q. 2212) Sir Oliver Lodge admitted that previous to 1896 he had not himself given the invention any practical application."

[Meaning by "practical" of course a commercial application on an engineering scale.]

This sentence I wish to traverse in the strongest way.

In the first place I was not conscious of any "cross-examination." I was not acquainted with the gentlemen who asked me questions, but they all appeared to me anxious to elicit the truth; and I answered their questions as frankly as possible.

I did not require any "pressing" to admit that I had not applied Hertz waves to actual telegraphy, other than signalling a small distance on what may well be called a model or laboratory scale. I have always asserted that; and the fact is well known.

As to what I did or said before 1896, I have appealed throughout to publications and contemporary records.

I will refrain from commenting on Professor Fleming's other statements, except two:

At top of page 5, he says that the tuning methods recorded in my 1897 patent would not work in his hands.

Very likely, but nevertheless it is on those methods almost exactly that we are working now. The primary of the transformer is exactly as there depicted; and the secondary, for what are now called short distances, is very like the figure; though less wire is sufficient, for reasons which are quite intelligible.

On page 5 he seems to imply that different systems cannot intercommunicate. As a matter of fact they can, and do; though the messages are not attended to. But if any one system will not, or cannot communicate with others then that system stands condemned for purposes of International intercourse.

Oliver Lodge.

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APPENDIX No. 9.

MEMORANDUM by Dr. Fleming.

MEMORANDUM of Evidence to be laid before the Select Committee on RADIOTELEGRAPHIC CONVENTION by Dr. J. A. Fleming, F.R.S., Professor of Electrical Engineering in University College of the University of London Past Vice-President of the Institution of Electrical Engineers, &c., &c.

I have been closely and practically connected with the progress of Electrical Engineering during the past 30 years. I am and have been Professor of Electrical Engineering in the University College of the University of London for 22 years. In 1879 I was the scientific adviser of the old Edison Telephone Company and in 1882 was appointed scientific adviser of the Edison Electric Light Company, and subsequently for 20 years of the Edison and Swan United Electric Light Company, and have acted in a similar capacity to innumerable electrical firms, corporations and companies in the last 20 years.

At Cambridge, 30 years ago, I studied under the late Professor Clark Maxwell personally, and closely followed the subsequent researches of Hertz. I have made the subject of electric wave research a speciality. In 1899 I was invited by Mr. Marconi to act as scientific adviser to his Company. I have written and published many books, papers and lectures on the subject of Electric Wave Telegraphy. I am constantly experimenting on the subject and have not merely a theoretical, but practical acquaintance with it. I assisted Mr. Marconi in the design of apparatus for the first power station in the world for long distance wireless telegraphy, and am intimately acquainted with his work as well as that of other inventors on this matter.

I may say, however, that my knowledge of the subject of wireless telegraphy is purely on its scientific and engineering side, and I have no connection with the business or commercial management of the Marconi or any other Company. I have read the evidence laid before the Committee, and also the Report of the Convention held at Berlin.

In reading the evidence laid before the Committee, I am much impressed with the rather disjointed manner in which the scientific aspect of the subject has been presented to the Committee. I venture to think it may be an assistance if I were to place before the Committee a more connected view of the present condition and future prospects of electric wave telegraphy with the object of enabling the Committee to judge whether the mode of regulating it proposed by the Convention will achieve the purposes desired, or, on the other hand, have the effect of hindering the progress of an art which is still extremely young, although immensely useful.

The idea of telegraphy between places not connected by a continuous wire is not new. As far back as 1838, Steinhell, of Munich, who suggested the earth return in telegraphy, anticipated that in time telegraphy might be conducted altogether through the earth without wires. Morse and Gale, at Washington in 1842, began experiments on telegraphy across rivers without connecting wires, and were followed by Lindsay in England. After the invention of the telephone, Preece, Rathenau, Strecker, and many others, prosecuted researches in the same direction, and later on Edison, Gilliland, Pheps, and others, invented a form of telegraphy to moving trains. From and after 1886, Sir William Preece devoted himself to the subject, and his work and that of the Post Office Officials on the so-called conductive-inductive method has been described by Mr. Gavey in his evidence before the Committee. These earlier methods of limited range were thrown into the background by the rise and invention of electric or Hertzian wave telegraphy. In 1892 Sir William Crookes, in a remarkable magazine article, made the suggestion that Hertzian waves might be used for this purpose, having had his imagination stimulated by Nikola Tesla's brilliant experiments on high frequency electric currents. In 1894, Sir Oliver Lodge gave a well-known lecture at the Royal Institution on "The Work of Hertz and some of his Successors." In that lecture there was not the slightest reference to the use of Hertzian waves in telegraphy. Subsequently it was stated that members of the audience, notably Dr. Muirhead and Mr. Campbell Swinton, had been stimulated by the experiments shown to attempt to apply the methods for telegraphic purposes. The important matter, however, is not what they tried, but what they succeeded in doing, and there is no contemporary record that they had any such success as to constitute it a new technical advance.

At that date the attention of physicists was more directed to the extension of Hertz's work on its scientific side than its application to transmit intelligence to a distance. Distance effects had, however, been observed and imperfectly understood facts noted. As far back as 1879, the late Prof. D. E. Hughes had shown that a tube full of metallic powder in connection with a telephone and voltaic cell was curiously affected by an electric spark at a distance. Branly, in France, had discovered the effect of a distant electric spark on the conductivity of a loose metallic contact now called the coherer action, and Popoff, in Russia, had applied the same for observations on atmospheric electricity. Although the rudiments of electric wave telegraphy were to be found in these experiments they did not rise beyond laboratory experiments or out-of-door effects transmitted much less than a mile, and although these things were well known, it was clear that additional invention was required before they could be utilised for practical telegraphic purposes. That invention was made and added when Marconi connected one end of a Hertzian wave oscillator to the earth and the other end to an insulated elevated plate carried on a long wire at the transmitting station, and likewise connected one end of a greatly improved form of Branly coherer or metallic filings tube at the receiving station to earth and the other end to an insulated elevated wire and plate.

The effect of this device was to change entirely the capabilities of the apparatus and render possible actual telegraphy by electric waves, and this, together with the other improvements introduced by Mr. Marconi, at the same time converted a mere laboratory apparatus into a telegraphic appliance. However much Mr. Marconi may have benefited by the work of his predecessors, the fact remains that whilst before his work in 1896 there was no electric wave telegraphy, since that date it has gone forward with giant strides, and there has been a flood of inventions, patent improvements and research starting from his fundamental improvements. The value of an idea of this kind is not to be measured by its intrinsic simplicity, but by the degree to which it stimulates further inventions on the part of numerous other people. In the evidence already before the Committee a great deal has been said about various "systems" of wireless telegraphy. It should be clearly understood that no form of wireless telegraphy has yet been devised which has any practical importance or extensive use at the present day except that involving electric or Hertzian waves. Moreover, all the various so-called "systems" make use in some form of the antenna, or aerial, air wire or elevated insulated conductors at both sending or receiving ends which characterised Marconi's first successful form of telegraphic apparatus. The modifications which have been introduced are in details, not essential principles. It has been found, for instance, that for short distances, or even up to say fifty miles or so, the earth connection introduced by Marconi at sending and receiving end can be replaced by a large capacity or

condenser. Instead of connecting the antenna directly to the earth, it may, as Sir Oliver Lodge has pointed out, be connected through a large condenser, but as high frequency currents pass freely through such a condenser, this is electrically equivalent to a metallic earth connection.

Again, instead of exciting the oscillations in the antenna by charging it with electricity and discharging it suddenly, it was found to be better to connect it directly or inductively to another circuit containing a condenser of large energy storage in which powerful electrical oscillations can be set up by charging and discharging the condenser suddenly. A large number of devices have been invented for detecting the oscillations created by the electric waves in the receiving antenna, but these cannot in any proper sense of the word be said to create a new "system" of wireless telegraphy. The Lodge-Muirhead System, Slaby-Arco-Braun System, the de Forest System, and the Fessenden System of wireless telegraphy, which have been named to the Committee as separate systems, are all similar in principle to the Marconi system in that they involve—(i) the use of electric or Hertzian waves as the means of communication; (ii) they all make use of the antenna at receiving and sending stations first introduced by Marconi; (iii) they all make use of an earth connection at both ends, or what is equivalent to it; (iv) they all employ a Hertzian or oscillatory electric spark at the transmitter; (v) they all create a disturbance in the universal ether called an electric wave, by the high frequency or rapid electric currents set up in the antenna at each oscillatory spark; (vi) they all employ some means of detecting the feeble oscillatory electric currents set up in the receiving antenna by the arriving electric waves. The more recent forms of transmitter differ from the earlier only in the number and energy of the waves sent out at each discharge spark. In the earlier form of Marconi transmitter at each electric discharge of the antenna a very few electric oscillations are created in it, which, moreover, rapidly die away. They are said to be *strongly damped*. The sparks made by the ordinary spark induction coil used come at the rate of about 50 per second, and each spark may excite only a very few oscillations in the antenna and radiates corresponding waves. In more modern forms of transmitter these trains of oscillations and waves are not only more energetic, but in each train the oscillations are more numerous and die away more slowly. They are called *feebly damped waves*.

In the most recent form of transmitter the trains of waves are continuous, or nearly continuous, and do not die away at all. They are called *undamped waves*.

There are three methods of creating undamped waves—(i) a mechanical method by means of a high frequency alternator; (ii) the electric arc method due to Duddell, and improved by Poulsen; and (iii) a mechanical and highly effective method which is a recent invention of Mr. Marconi and not yet described in detail.

In some ways these undamped waves transmitters are an advance on the Hertzian spark transmitters. The arc method of Poulsen is by no means the only, or the best, method known for producing these undamped oscillations, though very considerable prominence has been given to this method lately. It is much more difficult to use than the simple form of spark transmitter. Each of these forms of transmitter for creating strongly damped, feebly damped, and undamped electric waves has its own appropriate form of associated receiver, and it may be said exhibits its own peculiar virtues and vices.

The strongly damped spark transmitter is an easily managed device of great simplicity, but the corresponding strongly damped receiver is sensitive to nearly every stray or vacant electric wave passing through space.

The feebly damped spark transmitter requires a little more skill to handle and tune it. The corresponding feebly damped receiver is much more selective in its wave reception, and is sensitive to, electric waves of only a certain limited wave length and damping. The question of how wide or narrow may be the limits of wave length and damping within which it is affected is a complicated question. It is partly (a) a matter of the energy of the incident wave, and (b) partly of the skill of the operator, and (c) partly of the damping of the receiver.

The arc method of producing undamped oscillations is much more difficult to handle than the simple spark transmitter. Mr. Marconi has recently invented a new and very simple method of creating powerful trains of continuous or undamped waves, which I venture to think will exhibit a great advantage over the arc method at least for large powers. The antenna which is used for the reception of undamped waves can be made still more selective in its action as compared with the feebly damped receiving antenna, but it then requires more skill to keep its corresponding transmitter in tune with it.

There are thus three characteristic qualities of the electric waves used in telegraphy, viz.: wave length, wave energy and damping. These correspond to the tone, loudness and duration in the case of sound signals.

In regulations of the Berlin Conference the last two qualities are entirely ignored, and waves differentiated merely by wave length. This is quite unscientific.

As regards the means for making any particular antenna sensitive only to waves of one particular length and damping, the means so far employed are based chiefly on the facts of electrical resonance. Every electric circuit containing capacity and inductance, or electric inertia, has its own particular rate of vibration like a tuning fork, and is set in vibration most easily when acted upon by impulses at that rate. But there are other methods at least as promising, illustrated by the Anders Bull method, in which privacy is secured, not by the use of a particular wave length but by the use of certain agreed intervals between the wave trains. I mention this to show that invention has by no means reached its finality in the methods for securing privacy of communication.

Again, there is the important question of locating the direction from which waves are coming and limiting the all-round diffusion of the emitted radiation. Mr. Marconi has achieved a good deal towards this end by the use of bent antennæ, and you have heard from one witness that Lieut. Ryan, R.N., had made some observations of this effect.

Professor Braun, of Strassburg, Mr. de Forest in America, and others, have worked at it with a certain degree of success. Another matter to which I wish particularly to draw the attention of the Committee is the difficulties which surround electric wave telegraphy arising from the ever-varying transparency of our atmosphere to Hertzian waves. There is an absorptive effect on long and strong electric waves over great distances due to electric charges existing in our atmosphere. This is technically termed *atmospheric ionisation*, and is chiefly due to sunlight, radio-active matter in the soil, and cosmical action. The transparency of our atmosphere to long Hertzian waves varies from hour to hour and day to day. Its laws of variation are slowly being discovered, and it accounts for much of the irregularity in transmission which puzzled early experimentalists. Under some conditions transmitters of small power will send messages over unusually great distances, under others transmitters of large power are curiously limited in their range. This altogether vitiates the calculations of those who think that there is a hard and fast limit to the sphere of influence of any one transmitter. All these things support the conclusion that electric wave telegraphy is still a young art. Hundreds of patents are taken out every year for improvements, and the chief workers are still actively engaged in struggling with its outstanding problems. The notion that it has arrived at a final practical state in which it may very suitably be subjected to regulations for the good of all is a complete fallacy. Electric wave telegraphy has, moreover, this peculiarity, on which I wish to lay very great stress, viz., that experiments for its improvement cannot be carried out on a small scale. To make any useful invention in it each idea must be tested for some time in real practical telegraphic work. No small-scale or laboratory experiments suffice. To overcome the difficulties of trans-Atlantic telegraphy we must experiment across the Atlantic. It is not the slightest use to try the proposed methods across the English Channel. Valuable additions can only be now made to the art by experiments on the scale of 12 inches to the foot. Much has been accomplished, but still more remains to be done. Again, wireless telephony, or the transmission of speech by electric waves, has made more than a beginning, and I have the strongest belief that the problem of trans-Atlantic telephony is not only soluble but quite practicable.

Now, at this stage of the development of a progressive but infantile and yet important art, the proposed international regulation of it amounts to a suggestion to put a lusty infant into a close-fitting suit of armour, the ostensible purpose of which is to increase its usefulness, but the real effect of which will be most certainly to stop its growth.

That this is not an imaginative fear is clearly seen when we look back at the history of electric lighting. In 1882, electric lighting was very much in the same stage of progress as wireless telegraphy is now. It had emerge

from a laboratory into a certain practical condition. The British Government of that day, moved by a fear of monopolies, thought the time ripe for legislation, and Mr. Chamberlain introduced and carried through Parliament an Act entitled, "An Act for *facilitating* Electric Lighting." Now we all know what happened. This premature legislation crippled the industry. Five years afterwards it had to be reconsidered and amended, and so far from "facilitating" electric lighting it caused this country to lag greatly behind others in which no such artificial regulation of it had taken place. I am not suggesting for a moment that there is a parallel between the nature of the regulations in the two cases. I am only using it as an illustration of the fact that the wisest statesmen may be greatly mistaken in the effects they anticipate will result from the legislative control of a young but growing art.

When the bondage of official regulations is imposed on a technical application of science in the early stages of its development, the immediate effect is to hinder and delay the introduction of improvements. It is emphatically most true that "Necessity is the mother of Invention." If we want a real remedy for any deficiency in a technical application of science, the best way to obtain it is to let the consequences of the defect produce their full result. Thus, for example, it is acknowledged that our means of isolating wireless stations is still somewhat imperfect. Very well, then, let stations continue to interfere, and the pressure of necessity will sooner or later bring forth the required invention overcoming the difficulty. If, however, we endeavour to make bureaucratic regulations supply a more speedy but artificial remedy, we may purchase a slight immediate advantage, but we delay or hinder the natural evolution of the art and the discovery of the true remedy.

In much which has been laid before the Committee on the subject of interference the evidence has not always been as complete as could be desired. For instance, the Committee have heard from witnesses that interference and overhearing take place between various stations. The important question is whether this overhearing was voluntary or involuntary. Were the operators doing all that could be done, *i.e.*, had they the skill and apparatus to prevent overhearing if they desired?

There is a great difference between not being able to avoid overhearing what is said in a room because the walls are too thin or the speaking too loud, and putting one's ear to the keyhole on purpose to hear.

Now the remedy of the Convention is to define the wave lengths to be used in commercial work, and reserve other ranges for Naval and others for Trans-oceanic work. There are 10 regulations limiting the damping or the maximum wave energy in a train which may be used, yet a station emitting a powerful, strongly-damped wave of legal wave length is a far greater offender and nuisance than a station sending out a wave not of correct legal wave length, but less maximum energy and feebly damped. I point this out to show that the Convention, in the laudable desire to make short and simple rules, have overlooked important scientific facts. The true remedy for wireless interference is not to define a couple of wave lengths and make all else illegal, but to let the pressure of necessity develop the full scientific solution of the problem. If the commercial organisations now conducting wireless telegraphy are left to themselves to develop the invention in accordance with the natural laws of evolution, the mere struggle for existence will necessarily compel improvements, and in accordance with Nature's drastic law of the "survival of the fittest," the organisation which is most effective will survive. If, however, we interfere with the operation of this natural process by bureaucratic regulations, we not only artificially foster the unfit, but remove the strongest stimulus for improvement in the fit. We stereotype existing imperfections instead of allowing them to work out their own salvation, and we condemn the art to be content with a less degree of perfection than it would otherwise attain.

It is like providing the timid swimmer with a life-belt, or the valetudinarian with a bath chair.

It is to be hoped, therefore, that the Committee in arriving at their decisions will take this broad view of the case and look to the future as well as the present. The real danger is not the upgrowth of a monopoly, but the artificial restriction of the development of an art of the greatest importance in the world.

A good deal has been said in the course of the evidence by various witnesses, that if the Convention is not ratified there would be a risk of a "wireless war," rendering all wireless telegraphy impossible (Q. 321).

It is important to notice, however, that commercial organisations which exist for the purpose of making a return on invested capital do not indulge in unremunerative vindictive operations against their rivals. In the first place, it involves a large expenditure to erect and maintain a station. If that station does not pay or serve some useful purpose, it will sooner or later be closed. If two commercial organisations find that by some mutual arrangement they can do profitable work, but whereas without it they can neither of them live, their respective interests will bring them together. Mr. Babington-Smith has suggested that if England refuses to ratify the Convention, Continental wireless telegraph corporations may indulge in intentional disturbance (Q. 320). If they were to do so they would simply destroy their own field of operations. In common language, they would be cutting off their own noses to spite their faces.

I regard this idea of a "wireless war" as entirely hypothetical, and not within the range of practical politics. Even if we were to assume that none of the Powers agree to ratify the Convention, it is ridiculous to suppose that every wireless station would set to work at once to churn up the ether and create such a disturbance in the universal medium that no one could utilise it. Such a proceeding would be perfectly childish and could not possibly take place. If, on the other hand, we assume that other nations ratify the Convention while England does not, England will be even in a better position for avoiding disturbances than if she ratified it, for the nations that ratify will be bound by the regulations of the Convention to use certain wave-lengths, and not to use greater power than was necessary to effect communication. It will then be the simplest thing in the world for the British stations to select other wave lengths, which do not interfere with the Convention wave lengths. Moreover, although it is conceivable that under some circumstances coast stations could deliberately interfere with each others yet what is possible to the coast station or the power station is not possible to the ship. The ship is limited in the range of waves that it can send out, and in the amount of power that can be employed by the antenna which can conveniently and safely be erected on the ship's masts. Hence the idea that a ship could "shout down" a particular coast station and effect its own desired communication with another one by sheer violence is also impracticable. If, for instance, a ship in the Channel was desirous of communicating with the Lizard, it would not be practicable for a coast station at Ushant to stop this communication provided that the station at the Lizard was free to use the best known means to prevent this interference. The evidence of many witnesses given to the Committee on this matter is inconsistent. On the one hand, some witnesses, such as Sir Oliver Lodge, have claimed to have a perfect and exact method of tuning and isolation, and, on the other hand, he and others are advocating the adoption of the regulations of the Convention on the ground that this will prevent confusion and disturbance of one station by another.

It has been suggested that the proposed regulation would induce an era of universal wireless peace. There is, however, a vast difference between the peace produced by bureaucratic regulation of a new and progressive industry undertaken, so to speak, in advance of experience, and that spontaneous adjustment of respective interests, coupled with the inevitable survival of the fittest, which takes place when commercial organisations serving the public are left to work out their own purposes in their own way. The former is a thoroughly German, and the latter a characteristic British mode of approaching the subject.

The case against ratification may, I think, be summarised as follows:—

1. The Convention have legislated far too much with a view to the immediate present, and have neglected to consider the future of wireless telegraphy.
2. They have treated the subject of electric wave telegraphy as if it had reached a mature condition, whereas it is only a growing child.
3. They have held in view only the present simple methods of signal communication by fixed wave lengths, the wave trains as used in spark telegraphy. They have ignored the possibilities of undamped waves, and also the practical employment of electric wave telephony.
4. The effect of their regulations will most certainly be to cramp and restrict invention, and to make it far more difficult to either try or introduce improvements.

5. The adoption of the regulations of the Convention will remove that proper stimulus to making great improvements which arises from the pressure of necessity, by creating an artificial condition of affairs in which difficulties are covered up rather than removed.

6. They place the more efficient and progressive wireless telegraph methods on a level with the less efficient, and aim at a uniform mediocrity rather than the elimination of the unfit.

7. Our experience in the case of all previous great electrical inventions is that the premature subjection of them to official regulations has always in the long run proved to be a mistake.

8. The reliance on a network of bureaucratic regulations to bring about order and a certain minimum of efficiency, rather than the promotion of progress and improvements by healthy competition, is a characteristic German mode of dealing with a subject not in accord with British genius and enterprise.

In accordance with the permission of the Chairman I desire to supplement the memorandum of evidence already submitted by me to the Committee, as follows :—

As regards the history of electric wave telegraphy, evidence has been put in denying to Mr. Marconi the credit of being the true initiator of practical wireless telegraphy, and representing it as having been in existence before the date of his first British patent in 1896. Thus Sir William Preece has stated in his evidence (Q. 3314) that wireless telegraphy existed before Marconi, and that when Mr. Marconi came he only came with a new way of doing an old thing. This remark, though perfectly true in a sense, does not sufficiently emphasise the real novelty of Mr. Marconi's method. Mr. Marconi brought, not merely an alternative to some pre-existing methods, but something quite beyond them, and capable of doing that which the older and now extinct forms could not possibly achieve, thus opening an entirely new era.

On this point we can have no better testimony than that of Sir William Preece himself, for in 1897, lecturing at the Royal Institution (see *Proceedings Royal Society London*, 1897, Vol. 15, p. 467) Sir William Preece, introducing Marconi's work to the world, said of him: "He has not discovered any new rays; his receiver is based on Branly's coherer. Columbus did not invent the egg, but he showed how to make it stand on its end, and Marconi has produced from known means a new electric eye more delicate than any known electric instrument, and a new system of telegraphy that will reach places hitherto inaccessible . . . enough has been done to prove and show that for shipping and lighthouse purposes it will be a great and valuable acquisition."

This extract is not taken from a newspaper report, but from the official report of the lecture delivered by Sir W. Preece, proofs of which doubtless passed through his hands.

Again, we have the strongest testimony from Professor Slaby, of Berlin, who, on hearing of Marconi's experiments, came to England to see them, and, on returning, wrote a magazine article "On the New Telegraphy" (see *Century Magazine*, April 1898, Vol. 55, page 867), in which he says :—

"In January, 1897, when the news of Marconi's first successes ran through the newspapers, I myself was earnestly occupied with similar problems. I had not been able to telegraph more than 100 metres through the air. It was at once clear to me that Marconi must have added something else—something new—to what was already known, whereby he had been able to obtain to lengths measured in kilometres. Quickly making up my mind I travelled to England, where the Bureau of Telegraphs was undertaking experiments on a large scale. Mr. Preece, the celebrated Engineer-in-Chief of the General Post Office, in the most courteous and hospitable way permitted me to take part in these, and in truth what I saw there was something new. Marconi had made a discovery; he was working with means the entire meaning of which no one before him had recognised. Only in that way can we explain the secret of his success. In the English Professional Journals an attempt has been made to deny novelty to the method of Marconi. It was urged that the production of Hertzian rays, their radiation through space, the construction of his electrical eye, all this was known before. True; all this had been known to me also yet I was never able to exceed 100 metres."

Hence we have contemporary testimony on the part of Sir William Preece and Professor Slaby, that what Mr. Marconi did was not to continue the work of others, but something new which marked an epoch. Sir Oliver Lodge has stated (Q. 2117) that in 1894 Dr. Muirhead was struck with the applicability of electric waves to telegraphy, and he has claimed that his work in 1894 stimulated this application. Against this may be put the fact that in Sir Oliver Lodge's own book, entitled the "Work of Hertz and some of his Successors," published in 1894, after the delivery of his lectures in London and Oxford, there is not one single word on the subject of wireless telegraphy. Whereas in the second edition, published in 1898, after the date of Marconi's first patent, the title is changed to "Signalling Without Wires," and a chapter is added on the History of the Coherer Principle which was originally published in November, 1897, in the "Electrician," in which he refers to Mr. Marconi's work in terms of depreciation, as if it had chiefly consisted in putting scientific knowledge into a popular form. On being pressed in cross-examination (Q. 2212) Sir Oliver Lodge admitted that previous to 1896 he had not himself given the invention any practical application.

The real proof of the novelty of Marconi's work is to be found in the entire absence of any reference in contemporary literature prior to 1896 of the actual and practical achievement of wireless telegraphy by electric waves. It was and had been an inventor's dream, a project or suggestion not practically realised until the time when Marconi took it up and carried it to a state at which it became a practical form of telegraphy, having vast possibilities of development, altogether different from laboratory experiments with Hertzian waves. It is a significant fact that no one can point to a single patent for electric wave wireless telegraphy dated prior to the British Specification of Marconi, No. 12039 of 1896, whilst subsequently they are to be numbered by thousands. If practical electricians, such as Dr. Muirhead, had had their minds directed to the application of Hertzian waves in telegraphy prior to 1896 and had achieved any success which would in any way whatever be called practical, they would have unquestionably have put it on record in patent specifications.

Sir Oliver Lodge in his evidence states (Q. 2216) that he does not use an antenna, but in the next answer (Q. 2217) he says he does in his system employ an elevated aerial, which is made of wire, but it is not a wire up a mast. Surely this is a very refined distinction, having regard to the fact that in Marconi's first British patent the antenna is figured and described as a vertical wire with a plate at the top upheld by a pole. Sir Oliver Lodge also claims that he does not employ an earth connection, which is a feature of Marconi's invention; he says (Q. 2183): "In my 1897 patent I did not use much earth connection. Certainly in the old experiments of 1889, 1890, 1892 and 1894, I seldom used earth connections, sometimes for collecting, but never for sending. Well yes, sometimes for sending, but never for tune sending, or anything like tuning."

I submit that it would be difficult for anyone to ascertain from the above statement what Sir Oliver Lodge really does do.

In his more recent British patents, such as No. 11348, of 1901, he states that he employs an earth connection at both transmitter and receiver, and in this particular specification he states that one terminal of his working condenser has an aerial conductor of appropriate length and capacity, reaching up to a considerable height connected to it, and the other terminal of the said condenser is connected either to the earth direct or through another condenser to the earth. In other words, in this later specification by Lodge and Muirhead it is stated that a connection to earth through a condenser is the electrical equivalent to a direct connection. Furthermore, Mr. Muirhead stated (Q. 2365) that Sir Oliver Lodge was granted a master patent for tuning, No. 11,575 of 1897, in Great Britain. As against this I should like to put on record the following facts. In and before 1900, Mr. Marconi invented certain great improvements in tuned or synotic telegraphy, involving the use of certain forms of oscillation transformer, and obtained British patents for these inventions. On applying for equivalent German patents, that Patent Office referred him to Sir Oliver Lodge's above-mentioned 1897 patent as a possible anticipation. I was requested by the Marconi Company to go to Germany and discuss the matter. I accordingly had certain tuning

coils and apparatus for tuned wireless telegraphy made as closely as possible like the apparatus figured in the above-mentioned Lodge specification, and also other apparatus as described by Marconi. Experts from the German Patent Office came to meet me in June, 1900, at Borkum on the North Sea, and I exhibited the apparatus to them, and invited them to test it on a wireless circuit then established between the Island of Borkum and a certain light-ship. The apparatus made in accordance with Lodge's specification failed to work, while that made in accordance with Marconi's worked perfectly. The German Patent Office therewith granted patents to Marconi for these inventions. Hence the 1897 patent of Sir Oliver Lodge when put to the test of practice was not regarded by the very critical German Patent Office as master patent for tuning or for syntonie telegraphy.

In the course of the evidence given to the different systems in use, the Committee have had statements laid before them by Mr. Marconi as well as by me that the electric waves used in wireless telegraphy cannot merely be characterised by their wave length, but other qualities such as amplitude and damping must be specified as well as to define a wave, and that there are three types of waves now used:—(1) Strongly-damped intermittent wave trains; (2) feebly-damped intermittent wave trains; and (3) undamped persistent wave trains. Each of these is created by a particular form of transmitter and detected by a particular form of receiver. If we compare electric waves with waves in the air producing sound, we may say that the above three types of electric waves are analogous to (1) a number of short blasts on a trumpet; (2) a number of prolonged, more or less drawn out blasts on a horn; and (3) a continuous note of an organ pipe. The short blast on the trumpet at regular intervals corresponding to the series of rapidly decadent vibrations constituting the strongly-damped waves; the prolonged blasts on the horn corresponding to the more prolonged trains of feebly-damped waves; and a continuous note on the organ pipe to the undamped electric waves.

It has been stated by Sir William Preece (Q. 3488, also Q. 3600), and also by Mr. Gavey (see Q. 1802), that the use of these different types of wave generator and receiver is no barrier to intercommunication, but this evidence is not supported by the witness particularly well acquainted with the Poulsen apparatus, namely, Mr. Maskelyne, who in his answer (Q. 2585) most distinctly stated in the case of Poulsen apparatus, "If you work on an exclusive wave you have to work at a non-intercommunicating station, that is an exempted station, and it would be used to communicate with Poulsen apparatus only as it could not communicate with other apparatus."

The particular witness, therefore, who has most knowledge of the Poulsen apparatus, is in entire disagreement with Sir William Preece on this point. All practical experience shows that intercommunication requires a uniformity of structure or type in the receiving and transmitting apparatus, and it can only be effected between apparatus of diverse types by abolishing their characteristic differences of structure. In other words, by making them what they were not before, and therefore less efficient. No one can deny that a kind of electric but efficient system might be devised, the apparatus of which would be a sort of hybrid or cross between the different types now used which could intercommunicate, but it would have lost all the advantages of each separately. It is a fundamental law of radiation that bodies absorb rays similar to those which they themselves emit. Hence if a transmitter is sending out feeble undamped waves, they cannot effect a receiver which is appropriate or which would be effected by intermittent damped waves of greater amplitude. If the Committee have difficulty in deciding between the opinions of diverse witnesses the matter can be sufficiently settled by the fact that many such patents have been taken out by Mr. Poulsen and his colleague Mr. Pedersen for special forms of receiver adapted for the Poulsen transmitter, and there could have been no object for inventing special forms of receiver if all other forms of known receiver were equally well adapted for the reception of continuous or undamped waves.

Moreover, the above statement is confirmed by the evidence given by Mr. Maskelyne in his answers to Question 2578 *et seq.*, that the regulations of the Convention system could not be applied to the Poulsen system unless at the same time the stations were equipped with a De Forest system for receiving the ordinary damped waves as well, and that apparatus for both systems would have to be installed in stations if the undamped and damped wave systems came into general use (Q. 2378). If this argument is pressed to its logical issue, it follows that in course of time if we have in use not three but a dozen types of electric waves, a dozen different types of apparatus may have to be included in any station to enable intercommunication, in the Convention sense of the word, to be maintained.

If it is necessary to do so I can furnish an experimental proof by means of an instrument I have invented, called a Cymometer, for measuring electric waves, that the arrangement of a receiving circuit adapted for detecting intermittent trains of damped waves will not respond without alteration to continuous or persistent waves of the same mean power. It might be further illustrated by the fact that light as emitted by a body such as a star, which consists of persistent electric waves, can affect a photographic plate when too feeble to affect the human eye, and, on the other hand, very brief flashes of light, such as those from a lighthouse, can affect the human eye whilst they may not be able to affect a photographic plate. The eye and the plate are receivers of different kind adapted to detect different kinds of waves.

The matter may be put, then, in a series of propositions which, I submit, are justified by accepted scientific facts.

- 1st. That intercommunication implies identity of type of apparatus for transmission and reception.
- 2nd. That various types of apparatus for transmission and reception are now in use, and are likely to be.
- 3rd. That these different types will not naturally intercommunicate.
- 4th. That they can only be made to intercommunicate by abolishing their distinctive differences, making in fact, some intermediate type which is neither one thing nor the other.

Evidence has been offered as to the overhearing of messages by foreign or strange stations, which has been put forward as a proof that inevitable interference exists now, and hence, that if properly regulated, useful intercommunication can take place.

Evidence as to this overhearing has been given by Lieut. Loring (Q. 1136) and by Mr. Gavey (Q. 1803). On the other hand these witnesses were not asked whether in these cases the operators were trying to tap these messages, or whether they were trying to avoid receiving them. If the latter, whether it was the want of apparatus or skill to exclude the stray signals which caused them to fail.

At the present time the causes for interference or overhearing and the remedies for it are to be found in the effects of electric resonance. The full scientific explanation of these principles covering what is called syntonie telegraphy or the tuning of electric circuits were fully given long before the date of Sir Oliver Lodge's 1897 British patent. For example, they were fully set out in two papers published in 1895 in Germany by Oberbeck (Wiedemann's Annalen, Vol. 25, p. 63), and by Bjerknes (Wiedemann's Annalen, Vol. 55, p. 21). As these principles go to the very root of the chief controversial points before the Committee, I ask permission to make the facts clear to non-technical minds by a mechanical illustration. If a heavy weight like the bob of a pendulum is suspended by a rod or string we have an arrangement which possesses mass or inertia, commonly called weight, and also a power of being deflected or displaced from its position of rest and returning to it again. This is called its pliability. Such a pendulum can be set in vibration by slight blows or impulses even by puffs of air if administered to it at right intervals. Every pendulum has a natural period of vibration of its own, if left to itself; for example, a long pendulum goes slowly and a short pendulum goes quickly, and if we administer to it little blows in time with its natural swing at the proper intervals we can soon accumulate a large vibration. In an electric circuit as used in wireless telegraphy we have two electric qualities called inductance and capacity, analogous to the mass or weight and the pliability in the above pendulum.

To make a signal we must set up a certain minimum electric current or vibration in the receiver, which is achieved by the action of the electric waves falling upon the aerial wire or antennae, but this current must not exceed a certain maximum, otherwise the detecting device may not operate or may be injured, hence we have to operate between two fixed limits, and the following conditions must be complied with by the electrical vibrations set up in the receiving circuit, and therefore by the incident waves in order that they may create a signal. (1) They must

come at exactly right intervals of time in tune or in sympathy with the natural time period of the receiving circuit. This implies the use of a certain wave length. (2) They must be strong enough to accumulate a certain minimum current in the receiver. (3) They must not be too strong, or they will injure the receiver or put it out of adjustment. This implies exactly the right amplitude within certain limits in the waves, and therefore if intermittent wave trains are being used as in spark telegraphy a certain damping and a certain interval between the wave trains. It is not merely necessary to adjust the receiver to respond to a certain wave length, it must be adjusted to the other factors above mentioned as well.

Hence if a particular receiver is arranged for one kind of wave, say a continuous or persistent wave, it is not suitable for the reception of another kind of wave, say an intermittent damped wave as used in spark telegraphy. In other words, if constructed to be affected by the regular persistent general impulses of an undamped wave, such as a Poulsen transmitter, it will not be affected by the intermittent feeble damped wave given by the present type of Marconi transmitter, and vice versa. The evidence of Mr. Maskelyne affirms and agrees with this in opposition to the opinion of Sir William Preece. If we suppose several ships each equipped with a different type of transmitters attempting to communicate with a coast station, it is useless to say that the operator can adjust his apparatus to suit the arriving wave. He does not know what type of wave to expect, he cannot diagnose it until he receives it, and he cannot receive it until he has arranged the apparatus to suit it. Hence a practical impulse arises and intercommunication is impossible unless one single type of wave is everywhere employed. Identity of wave length is not sufficient, there must be essential identity in type of wave, and therefore in type of apparatus, for transmitting and receiving. The greater the progress of wireless telegraphy the more differentiation there will be between types of waves used, just as in engineering we are not limited and bound down to the use of one single type of steam engine; and whilst to day we have three types of waves, five years hence we may have four or five times, and this will still more increase the impossibility of intercommunication. Hence the following three principles are incontrovertible and are supported by the best opinion.

(1) Satisfactory general intercommunication of wireless telegraph stations and ships is only practicable if all are equipped with apparatus of the same type.

(2) The progress of wireless telegraphy will inevitably tend to extend the existing number of types of electric waves and methods of employing them in proportion as our knowledge of the subject increases. It has done so in the past, and it will therefore do so in the future unless hindered.

(3). The progress of invention will be arrested therefore if intercommunication is made compulsory.

The Poulsen apparatus will not intercommunicate at present with the Marconi and can only be made to do so by such alterations or changes that each loses its essential feature and efficiency. If the system of irregular intermittent waves types by Anders Bull or the twin wave system of Artom were to be developed into practical forms as they may be, they would not intercommunicate either with the Poulsen or the Marconi. The advocates of intercommunication endeavour to turn the difficulty by saying that in a short time all companies will employ persistent waves like Poulsen (*see* Sir William Preece's answer to Q. 3484). This does not affect my argument; it would simply mean that any progress beyond the use of a persistent wave was arrested and we have no reason to believe that this will be the case, having in view the possibilities of wireless telephony, as well as wireless telegraphy and other things which the future must have in store for us. If, therefore, the Convention is ratified it logically implies and will inevitably compel a certain uniformity of apparatus, and although scientific progress may not be formally interdicted, it will have to be conducted in face of the cumbersome machinery and great inertia of International Conference. The pace will be reduced to that of the slowest or most conservative nation, and the difficulty of trying or introducing new inventions or trying them on a practical scale will be enormously increased. The idea expressed by Sir William Preece (*see* Q. 3574 and Q. 3598) that wireless telegraphy or any improvements on it must be made to fit into the regulations of the Convention, is equivalent to saying that wireless telegraphy must not advance beyond a certain rate of progress. Experience in other matters such as the International system of electric units now established shows that when once Conventions have regulated on a large scale and bonded together isolated establishments it is almost impossible to introduce improvements or reforms. On the other hand, if the Convention is not ratified we give free play to all the motives tending to foster scientific ingenuity and bring it to bear upon the art of wireless telegraphy and to all legitimate commercial considerations to overcome imperfections.

If Great Britain does not ratify the Convention it is possible that there may continue to be a certain amount of overhearing or interference with stations on the South Coast of England, but as far as non-British stations are concerned, this would arise chiefly from stations on the coast of France, and might quite easily be the subject of special arrangements until such time as scientific advance provides the full remedy. Meanwhile British stations, not being bound by the Convention regulations, would be free to employ any wave length or amplitude or type of wave most suitable for avoiding such interference. As regards the erection of other non-Marconi stations on the South Coast of England, I see no objection to this from a technical point of view if the development of wireless telegraphy in Great Britain is allowed to proceed on natural lines unhampered by artificial restrictions, such as those proposed by the Convention. In that case I believe that technical and commercial remedies will be found to evolve themselves for preventing interference, and the natural evolution of the Art will not be hindered.

Another argument against the ratification of the Convention which certainly deserves consideration is as follows:—It seems to have been taken for granted in the proposed regulations of the Convention, and in the opinion of the witnesses who have advocated ratification, that the Marconi Company possess no fundamental or basal patent rights in Great Britain in connection with wireless telegraphy by electric waves. It has been assumed that any one is free to employ antennae for transmission and reception and earth connections or equivalent means at both stations with systems of spark telegraphy or any other mode of producing the electric waves. It is true that the principal Marconi patents for electric wave telegraphy have not yet been tested as to scope and validity in British Courts of Justice. In spite of the amateur opinions which have been expressed on this subject there are substantial reasons based on eminent legal opinions for the belief that patent rights of a fundamental kind are possessed by the Marconi Company and Mr. Marconi in virtue of these patents. I speak with an intimate knowledge of the subject, because for the past 8 years it has been part of my duty to examine and report on these patents in consultation with Counsel, to assist in the litigation on them which has taken place in the United States and also in the German patent office oppositions. There is abundant evidence to show that, without the use of antennae and earth connections or their equivalents at both stations no wireless telegraphy by electric waves can be conducted. Whatever may have been the additional improvements made in the early apparatus it is perfectly certain that these are of no utility, apart from the fundamental inventions which first made this new telegraphy possible. If the exclusive right of use of these fundamental elements should prove to be the property of the Marconi Company when tested by litigation, it is unavailing to speak of it as an injurious monopoly, for it is a recognised and legal monopoly conveyed by the Crown in virtue of the Patent Acts.

It is true that the Crown places upon the patentee the duty of establishing the novelty, and utility of the invention and the technical correctness of the specification, which are a condition of the contract made with him, but assuming the patent to be upheld when so tested, those who venture within the area so marked out risk the pains and penalties of infringement. It is surely then a fair argument to say that the Government having conveyed these potential patent rights to an inventor, and placed upon him the onus of defending them, has an obligation to do nothing to render his task more difficult, least of all impossible. If, however, the Government ratifies this Convention, or even if they permit Convention-controlled wireless station in Great Britain, they are in effect supporting and aiding in the formation of a powerful coalition which has for its professed objects what Sir William Preece calls equality of opportunity (Q. 3443) or others the breaking down of the so-called Marconi monopoly, but which is in reality a skilfully organized plan to make of no effect the advantages which have been

gained by that company by priority of invention and by superior commercial organisation and foresight at a time prior to 1904, when it was open to all and every inventor or wireless company to enter the field and do the same if he could.

Apart, therefore, from the general arguments against ratification based on the immature state of the art, and the radical impracticability of general intercommunication by reason of variety of apparatus, which has nothing to do with the rights of any particular Corporation, we have a special argument against ratification or the establishment of Convention-regulated stations in Great Britain from the point of view of justice to established interests; viz., that it assists to create under Governmental support an organisation which, whilst it will not perform better, or even so well, the functions of the existing organisation in full operation, will render it difficult or even impossible for the latter to maintain and enforce the legal rights they may possess in Great Britain in virtue of their patents. But for the assumed protection of these patents and the assistance it gave in securing the large financial support necessary for the creation of a commercial organisation, it is certain that wireless telegraphy by electric waves would have been nothing but a scientific toy or inventor's pastime to the present day.

In short the Government is bound to proceed on the assumption that the fundamental Marconi patents are valid until they are proved invalid. This contention is enormously strengthened by the fact I have already mentioned that no patent for electric wave-wireless telegraphy exists in any country prior to the one applied for in Great Britain by Mr. Marconi in June, 1896, and there are the strongest reasons for the assumption that the above-mentioned patent is not merely valid but broad. The Government therefore cannot pledge itself to any such course of action as is involved in the ratification of the Convention without *ipso facto* denying the existence or even the possibility of existence of those rights it has already granted, in other words prejudging the scope and validity of the Marconi patents. It cannot pledge itself with foreign Powers to provide non-exempted stations in Great Britain without doing that which can only be rightly done if and when it has been proved by the judgment, not only of the Court of First Instance, but of the Court of Appeal and of the House of Lords, that no fundamental patent rights controlling all electric wave-wireless telegraphy belong to the Marconi Company.

APPENDIX No. 10.

PAPERS handed in by Mr. H. Babington Smith, 14 May, 1907.

(See Questions 3853-4.)

(1)

DECREES of Argentine Republic authorising the establishment of Radiotelegraph Stations.

Buenos Ayres, 31 August 1906.

In view of the request preferred by Don Thomas Devoto in his capacity as President of the Marconi Wireless Telegraph Company of the River Plate, which holds the concession of the Marconi Wireless Telegraph Company, Ltd., and the Marconi International Marine Communication Company, Ltd., seeking authority to establish radiotelegraphic stations within the jurisdiction of this nation and on the ships which fly the Argentine flag, complying in all respects with the prescriptions of the offices concerned.

The President of the Republic decrees that the required permission to establish the radiotelegraph stations in question be granted under the following conditions:—

1. The establishment and working of radiotelegraphic communications shall be subject in all respects to the provisions of the National Telegraph Law of 1875 and of the Law No. 4403, the Company being at the same time bound to comply with the laws and regulations which may be imposed on this subject in future.
2. In no case shall the installation of these radiotelegraphic communications be carried out in such a way as to injuriously affect the use for which other electric installations are intended.
3. The tariffs shall always be fixed by agreement with the National Executive Power in the form determined by Article 6 of the aforesaid Telegraph Law of 1875.
4. The Concessionary Company shall have no power to institute any kind of transmission which is not authorised by the National Telegraph Laws or Regulations.
5. The charges incurred for the wages, travelling allowances, and fares of the officer or officers employed to make the inspection provided for in Article 5 of the Law No. 4403 shall be borne by the Concessionary Company.
6. If the Executive Power see fit, it shall have the right to require of the Company that all the employees be Argentine citizens.
7. The present concession does not confer on the Concessionary Company a monopoly of radiotelegraphic communications in this country or any privilege.
8. The Concessionary Company shall have no power, without the previous consent of the Executive Power, to transfer this Concession, nor to enter into arrangements of any kind with other telegraph, telephone or radiotelegraphic companies.
9. The legal domicile of the Company must be fixed in the capital of the Argentine Republic, and shall be shown in the deed of registration.
10. If the Executive Power for reasons of public utility shall determine on the expropriation of the installations of this Company, it shall have power to do so in accordance with the provisions of the laws which govern the matter.

Be this published in the Official Gazette and referred to the Minister of the Interior for his information.

(Figueroa Alcorta) N. Pinero.

(2)

LICENCE granted to the Netherland-American Navigation Company (Rotterdam) for the installation and utilisation of radiotelegraph station on board ships of the Company flying the Netherland flag (December 17, 1905).

1. In this licence "Company" is to be understood as the Netherland-American Navigation Company, "Holland-American Line," of Rotterdam; "ship station" as the radiotelegraph installations on board vessels of the aforesaid Company; "Netherland coast station" as the coast station worked by the State for general public correspondence at Scheveningen (Harbour); "resolutions of Berlin" as the convention and regulations of Berlin with regard to the radiotelegraphic service signed on 3 November, 1906.

TERMS OF THE LICENCE.

2. The licence is granted for a period of five years, and remains in force until a year after the date on which the Minister of Navigation declares that he withdraws the licence.

INSTALLATION OF THE STATIONS.

3. *System.*—For the ship stations it will be necessary to choose such apparatus as will permit of intercommunication with the Netherland coast station.

4. *Establishment.*—The Company must notify to the Director-General of Posts and Telegraphs the names of the vessels on which a ship station is or is about to be established, and must produce a declaration by the Marconi Company certifying that the ship stations are equipped with apparatus and operated by telegraphists fulfilling the conditions stipulated in the resolutions of Berlin.

WORKING.

5. *When Communication is forbidden.*—The ship stations must immediately suspend all communications when the Netherland coast station requires them to do so.

6. *Power and Wave-length.*—As a general rule work must be carried on with the minimum of electrical energy necessary for the purpose, and, so far as concerns operations in connection with the Netherland coast station, with a wave-length which will permit of communication with the said coast station.

7. *Where Communication is forbidden.*—Failing the permission of the Director-General of Posts and Telegraphs, and, in case of such permission, subject to any conditions that may be stipulated, it is forbidden to utilise the ship stations within the limits of any territorial waters of the kingdom unless by reason of special circumstances the exigencies of navigation make it necessary to disregard this prohibition.

8. *Suspension of Traffic.*—The working of the ship stations shall be suspended entirely or in part by Royal decree when this course is considered necessary in the general interest.

The Director-General of Posts and Telegraphs may provisionally suspend the service, either at certain specified places, or during certain hours of the day, when the interests of the public telegraph service require it.

EXCHANGE OF TELEGRAMS.

9. *Instructions and Regulations.*—The instructions relating to the public radiotelegraphic service of the kingdom and the provisions of the service regulations for the national and international telegraphs, as well as exceptions and additions made to these regulations, are applicable to the exchange of telegrams between the Netherland coast station and the ship stations.

10. *Tariff.*—The tariff fixed by the royal decree of 22 December, 1905 (Official Journal No. 358), or as it may be fixed by later modifications, is applicable to the exchange of telegrams with the Netherland coast station.

On telegrams exchanged with the ship stations a ship charge of 20 cents a word, with a minimum charge of two florins a telegram, shall be made on behalf of the Company. A double charge may be made on telegrams exchanged with a station covering a range of over 800 kilometres.

The computation and reckoning of the charges made shall be subject to special regulation on lines to be settled between the Director-General of Posts and Telegraphs and the Company.

11. *When Transmission and Reception are obligatory.*—The ship stations are bound to signal their presence when they enter the zone of action of the Netherland coast station. The ship stations are then bound to exchange their traffic with the Netherland coast station.

Secrecy.—The Company is bound to preserve the secrecy of all telegrams transmitted by the ship stations.

It is bound to ensure that persons not employed in operating the ship stations shall have no opportunity of acquiring knowledge of these telegrams, and that those who are employed for this purpose shall be pledged to respect secrecy of correspondence.

MEASURES TO BE TAKEN.

13. The Company must always endeavour to maintain the ship stations in the highest possible state of efficiency, in order to be able to answer the requirements of a rapid exchange of traffic.

14. *Seizure of the Stations.*—In case of war, or when it is declared by the Queen that the situation contemplated by Article I, 1 and 2, of the law of 23 May, 1899 (Official Journal No. 128) exists, the military authorities shall take charge of the ship stations.

15. *Signals of Distress.*—In order to give or transmit signals of distress the provision of Articles 6 and 7 may be disregarded.

FURTHER RULES TO WHICH THE SERVICE IS SUBJECT.

16. At the ship stations the resolution of Berlin, and all regulations issued by the Minister of Navigation or in his name in pursuance of these resolutions, shall be applied within the limits in which they have to be observed by all radiotelegraph stations installed on vessels flying the Netherland flag.

ASSIGNMENT OF THE LICENCE.

17. This licence cannot be assigned to a third party without written authority from the Minister of Navigation.

DETERMINATION OF THE LICENCE.

18. The licence becomes void :

1. In entirety : if within a year from the date of these presents the powers conferred by the licence have not been exercised in respect of at least one ship.

2. As regards the ship or ships concerned :

(a) If the conditions of the licence are not observed.

(b) When the ship or ships concerned cease to fly the Netherland flag.

(3)

TRANSLATION of Letter from Belgian Telegraph Administration to General Post Office, dated 18 October, 1902.

I have the honour to inform you that the Belgian Government has concluded with the Wireless Telegraph Company, whose headquarters are at Brussels, a convention for the establishment by the Company of wireless telegraph stations (Marconi system) on the packet boats of the Belgian Government plying between Ostend and Dover and at a point on the Belgian coast near Nieuport.

The principal provisions of this convention are as follows :—

1. The stations are to be worked by the Belgian Government by its own agents.

2. So far as the Anglo-Belgian packet service is concerned, the stations will only be utilised for private and official correspondence between the packet boats, between the boats and the station on the Belgian coast, and

ultimately, between the boats and a station on the English coast (which will be established on the Marconi system), subject to the following further provisions :—

(1) The Belgian coast station may correspond, if necessary, with the English coast station, but only for the exchange of messages relating to the working of the mail packet service.

(2) The stations may correspond regularly (a) with all other wireless telegraph stations worked by the Belgian Government for any other maritime purpose ; (b) with all other maritime stations not worked by the Government, provided that those stations are established by the Wireless Telegraph Company or the Marconi International Marine Communication Company, Ltd., or under agreement with those Companies.

Nevertheless, it is understood that (a) in case of necessity the packet boats may occasionally communicate with any station whatever ; (b) the Belgian coast station may communicate with any floating station when it is a question of life and death.

(3) It is stipulated, moreover, that the above restrictive clauses regarding the exclusive employment of the Marconi system shall be regarded as null and void if, on account of the interpretation of the International Telegraph Conventions or of a new framing of those conventions, the Belgian Government finds itself obliged to accept messages from stations of all systems of wireless telegraphy able to communicate with its own stations.

4. The decrees, of which copies are attached,* show under what conditions private correspondence may be exchanged by means of wireless telegraphy.

These decrees will only come into force after the stations are complete, and when the new means of communication is in regular working order. The equipment of the coast station at Nieuport has been completed ; the equipment of the boats is in progress, five out of nine being already fitted with apparatus.

5. Until otherwise arranged, the service between the coast station and the packet boats of the Ostend-Dover service will be subject to the rules of the inland Belgian service, in the sense that it constitutes simply a special method of transmitting telegrams through a Belgian office, that of Nieuport.

In the interests of the Ostend-Dover maritime service, I have the honour to ask you to be so good as to inform me if the General Post Office has any objection to the exchange of communications between the boats themselves and with the Belgian coast station, even when they are in English waters, on the understanding that the communications relate to the maritime service, that is to say, on the understanding that no private messages are exchanged.

I should also like to know if the General Post Office would be disposed to establish at Dover, or in the neighbourhood of that port, a wireless telegraph station (Marconi system), which would be able, after the mutual settlement of charges, to communicate with the Belgian coast station regarding matters relating to the mail packet service, and with the boats both regarding matters relating to the mail service and for the exchange of private messages.

* Copies of decrees not attached.

APPENDIX No. 11

PAPER handed in by *Mr. H. Babington Smith*, 14th May, 1907

(See Question 3864.)

MEMORANDUM by *Sir Robert Hunter*, Solicitor to the Post Office.

Mr. Cuthbert Hall contends that the Government cannot properly ratify the Convention because its relations to the Marconi Company, and the position of that Company in respect of their patent rights, are such that the Government may find it impossible to give effect to the obligation to intercommunicate. (Q. 1455.)

He arrives at this conclusion in the following manner :—

(1) He alleges that the Marconi Company are not bound to accept the obligation to intercommunicate on account of the qualification in the Agreement with the Post Office. (Art. 10) "without prejudice to their patent rights."

(2) He alleges that on the same ground they are not bound to release Lloyd's and the Admiralty from the obligation *not* to intercommunicate.

(3) He asserts that if the Marconi Stations are exempted from the obligation to intercommunicate, the Government cannot establish other stations in accordance with the Protocol, because all other systems infringe the Marconi Patents.

(1) The first step in this argument has been the subject of comment by Mr. Babington Smith. The following are the points to be borne in mind :—

(a) The Company have given a general undertaking to observe the provisions of the Convention, without any allusion to their patent rights. If they had intended to qualify their adhesion to the Convention by the condition that it should only operate if those rights were not prejudiced, the intention would have been expressed by a general Proviso similar to that which relieves them from giving information as to the details of apparatus (Proviso 2.)

(b) The allusion to patent rights does not qualify the undertaking of the Company, but the "acceptance of the obligation" to interchange messages. The meaning is, that in accepting the obligation and in interchanging messages they do not mean to waive any right they may have, to proceed against those with whom they interchange for an infringement of their patents.

Mr. Hall says (Q. 1443), that such a reservation will not protect the Company as against an infringing and communicating system, because the reservation is in an instrument to which the infringers are not parties. Upon this it may be remarked that in any infringement proceedings the fact of intercommunication could only be used against the Marconi Company as evidence of acquiescence on their part in the validity of the infringer's patents; and the Company would show conclusively that there was no acquiescence, inasmuch as in accepting at the hands of the Government the obligation to intercommunicate, they had guarded themselves against the suggestion that by so doing they were waiving the right to take infringement proceedings. It requires pronounced acquiescence to debar a patentee from taking infringement proceedings.

It is also to be observed—

That the Agreement between the Company and the Postmaster-General is public property (presented to Parliament) and therefore any intercommunicating Company will practically have notice of the conditions under which the Marconi Company intercommunicate.

(2) As to Mr. Hall's allegation that Lloyd's and the Admiralty will not be relieved from the obligation not to intercommunicate—it has been already pointed out that the qualification "without prejudice to their patent rights" does not apply to the undertaking given in relation to Lloyd's and the Admiralty. The undertaking is unqualified so far as it relates to those bodies."

(3) The allegation that all other systems involve an infringement of the Marconi Patents is not substantiated by ascertained facts.

The Marconi Company has taken no step in this country—or in any country except the United States—to prove that other systems infringe its patents.

The decision in the United States against the De Forest Company is a decision of a State Court only, and does not seem to have been effective to restrain the De Forest Company from carrying on wireless telegraph business in America (Hall, 1450, Maskelyne 2629) :—

In this country the Lodge-Muirhead Company have traded publicly, and have supplied apparatus to the War Office, and to public Companies. Far from the Marconi Company attacking the Lodge-Muirhead Company, the Lodge-Muirhead Company are taking proceedings against the Marconi Company in the nature (it is understood) of an action for slander of title (Muirhead 2385).

The De Forest Company (now the Amalgamated Radiotelegraphic Company) have stations doing commercial work under the sanction of the Post Office.

The Marconi Company would be prejudiced in any Patent proceedings by their laches in standing by during a long period and letting other Companies and persons embark capital in other systems.

But assume that all the Marconi Company's stations were exempted stations under the Convention, and that they established that every other system involved an infringement of their patents, the Crown would still be entitled to use any system, upon payment both to the Marconi Company and to the owner of any improvement, and might establish and work stations.

The Crown was not bound by its own Patents, prior to the passing of the Patents Act, 1883; it could use any patented invention at pleasure (see *Feather v. The Queen*, 6 B. and S. 257). Since that Act it has been bound, but only according to the terms of the Statute, which provides that the Crown may, "by its officers, agents, contractors

or others," use any patented invention for its own service upon payment of remuneration to be determined, if necessary, by the Treasury (see Patents Act, 1883, Sec. 27.*)

This remuneration would go to the Marconi Company so far as their patent was concerned, and to the owners of any other system so far as the apparatus used by the Crown involved any patented improvement upon the Marconi apparatus.

There is no foundation for Mr. Cuthbert Hall's suggestion (Q. 1478) that the Crown can be in any way limited in the use it makes of a patented article.

It is impossible, therefore, that the Government should be unable to establish intercommunicating stations; the worst that could happen would be, that certain payments might have to be made to the Marconi Companies, over and above the double rate specified in Article 10 of the Post Office Agreement.

Post Office,

ROBERT HUNTER.

14th May '07.

*This section is as follows :—

(1) A patent shall have to all intents the like effect as against Her Majesty the Queen as it has against a subject.

(2) But the officers or authorities administering any department of the service of the Crown may, by themselves, their agents, contractors, or others,, at any time after the application, use the invention for the services of the Crown, on terms to be before or after the use thereof agreed on, with the approval of the Treasury, between those officers or authorities and the patentee, or, in default of such Agreement, on such terms as may be settled by the Treasury after hearing all parties interested.

APPENDIX No. 12.

PAPER handed in by Mr. Charles Bright, F.R.S.E., A.M., INST. C.E., M.I.E.E.

LETTER addressed by the Marconi Company to certain Shipping Companies.

(See Question 4056.)

18, Finch Lane, Threadneedle Street, London,
7th December, 1906.

Dear Sirs,

If you could see your way to sending some such letter as the enclosed to the President of the Board of Trade, we should be very greatly obliged.

The Convention is a scheme of Germany to upset a British business—to obtain, through the medium of an International Convention, what the Germans have been unable to secure in open competition. This has been plainly declared both in German diplomatic Notes and in the German Press.

On these grounds alone the British Government appears to have some justification for resisting the Berlin proposals, but our contention is that, apart from our special interest altogether, the Berlin proposals are bad, as they must result in a service based on principles which are radically unsound.

The best proof of the impossibility of securing a satisfactory service if these various stations intercommunicating are subject to a number of distinct authorities, is found in the fact that our service in the past suffered to a certain extent from competition between operators in the employ of the different Marconi Companies. The Directors and Managers of these Companies were, of course, fully alive to the necessity for cordial co-operation, but they found it very difficult to eliminate the spirit of competition among the operators of the different Companies. When, for example, ships under the control of the Belgian and French Companies respectively were simultaneously within range of, say, the Lizard Station, there was competition for communication, and if one operator was told to stand by, it sometimes happened that he would continue to call the station and so prevent the operator on the other ship from sending his messages. Reprimand or dismissal is, of course, not an immediate remedy in such cases, and, of course, it is difficult to prove that the operator on the ship told to stand by had received the signal. We have put an end to this competition primarily by means of a bonus system under which the operators get a bonus per word sent, *provided that every rule and regulation has been observed*. So that an operator who breaks a rule, not only runs the risk of reprimand or dismissal, but also loses the money which he might have earned from the budget of messages which he had to deliver if he had obeyed instructions as to order of transmission of his messages.

The British Delegates were, in our opinion, completely over-matched at the Conference, and have agreed to arrangements which, if ratified by the English Government, will result in disturbance of the wireless service round our coasts, the disturbance being proportionate to the extent to which the service based on the principles of the Convention is in operation. Also there are a number of provisions which should have been embodied in the Convention which the English Delegates themselves urged as of importance for securing a good service, which were rejected by the Conference. Therefore in asking the Government to ratify they are advocating an arrangement which they themselves pointed out is defective in certain essential particulars. In fact they have completely stultified themselves; they took up one position at the beginning of the Conference, and another at the end, and they did not pretend that the conditions for which they had stipulated had been fulfilled.

It is hoped that the Government will not ratify, particularly as some members of the Cabinet at any rate are by no means in favour of the Convention.

... We shall, of course, be very much obliged if you can see your way to doing anything to support us in this matter, and we hope you will agree that, apart from our interest altogether, the encouragement of a service based upon the provisions of the Convention will tend to dislocation of the existing wireless service.

If England refuses to ratify, and no stations for the International service are established in British territory, in my opinion, the Convention becomes practically a dead letter. This is also the view of Germany herself, if any weight can be attached to her Notes to Foreign Powers, and the statements in the German Press.

I am,

Yours faithfully,

The Marconi International Marine Communication Co., Ltd.

H. Cuthbert Hall,

Managing Director.

ENCLOSURE in the above.

Sir,

We understand that His Majesty's Government has under consideration the advisability or otherwise of ratifying the Wireless Telegraphy Convention, and that if the Convention is ratified by England a certain number of stations will be erected on our coasts for a service in accordance with the provisions of the Convention.

We desire respectfully to record our protest against such a procedure, as tending to the demoralisation of wireless telegraphic communication for maritime purpose, and beg that our views may receive due consideration. We are not aware of any official declaration on the part of His Majesty's Government with regard to its intentions in respect of the Marconi Company's stations—as to whether in any event it is proposed to impose upon the Company the provisions of the Convention—and the Company informs us that it is without any official intimation on the subject.

We are however of the opinion that the working of the wireless service for maritime communications should, if possible, be vested in one Administration, and that this desideratum should at least be secured as far as wireless working round our coasts is concerned. We realise that there are certain difficulties in the way of an extended application of this principle; but fortunately, as we regard it, the whole wireless service from ship to shore and ship to ship communication which affects the vessels of our line is now controlled by the Marconi Companies, and we should deprecate anything which tended to a disturbance of this arrangement, or to the prevention of its natural expansion.

When the stations in the North of Ireland were worked by Lloyd's the service at them compared most unfavourably with the service carried on by the Marconi Company at the Canadian stations, and was the subject of constant complaint by us. The unsatisfactory character of the service was in our opinion in this case primarily due

to division of authority. The stations on the ships have to work with the coast stations, and it appears to us to be of much importance to the service that the ship and coast stations should be worked by employees of the same Company. In Canada the Canadian Government stations are worked by the Marconi Company, but owing apparently to the relations existing between the English and Canadian Marconi Companies, all element of competition is eliminated. We understand that under the provisions of the Convention the ship stations may be worked by operators of a number of different employers, and that the coast stations may be worked by the Government or by Companies. Our experience leads us to conclude that confusion will result from a service organised on such lines, and that it will be not only bad in itself, but a source of disturbance to any special service, exempted from the provisions of the Convention, which may be established or permitted to continue.

All ships using the port of Liverpool carry similarly tuned apparatus, and any ship within range can disturb communications between two other ships or between another ship and a coast station. The prevention of disturbance is therefore secured by enforcing certain regulations, rather than by technical arrangements; and we do not see how it will be possible to enforce satisfactory regulations for preventing disturbance with no control over operators on a number of boats, who are employed by different persons and are able to disturb one another's communications.

If there are several ships simultaneously within wireless telegraphic range of the same coast station, priority of communication must be given to one by the others. This involves a surrender of advantage, and is, of course difficult to secure among competitors.

Further, we are strongly of opinion that, even with the best will in the world, it will be practically impossible to prevent interference if the stations communicating are worked by operators with no control over the discipline of one another, and in the employment of different persons.

There seems to be no precedent in any public telegraph service for such an arrangement, and, indeed, none in any public service of any kind which involves the use of apparatus of a highly technical character, requiring skilled and specially trained manipulation.

I have the honour to be, Sir,

Your obedient servant.

APPENDIX No. 13.

MEMORANDUM BY Mr. CHARLES BRIGHT, F.R.S.E., A.M.INST.C.E., M.I.E.E.

Having made a special study of the historical technique of all branches of telegraphy, the following particulars are herewith submitted in addition to my evidence-in-chief :—

Pioneering.—Largely due to the influence of the lay press—with which the Marconi Company appears to be in somewhat close touch—the general public (as distinct from the scientific world) have been led to believe that Mr. Marconi is the sole pioneer of wireless telegraphy; and that consequently, if only for the above reason, to allow competition with his Company would be an unjust as well as an unpatriotic act.

This impression is, however, contrary to fact. History shows us that in all applications of science, pioneering is the work of several hands; and this applies in Hertzian-wave telegraphy as much as in wire telegraphy. A brief historical sketch of the gradual development of the art will, perhaps, render my point clear :—

In 1863, Clerk Maxwell worked out mathematically the theory of electro magnetic waves in the ether, and their relationship with light waves.* In 1888, Heinrich Hertz (a distinguished German physicist) produced, demonstrated, and described them. Then Righi (a noted Swedish professor and Marconi's tutor) produced a radiator that was a development of the Hertz oscillator, whilst Branly (a leading French scientist) introduced the coherer suitable for the reception of electric waves.

In 1894 Dr. (now Sir Oliver) Lodge showed at the Royal Institution a complete set of Hertzian wave apparatus, and transmitted electrical signals from one room to another without intervening wires, using a somewhat improved Hertz radiator and a coherer which was an advance on Branly's.

The first person to turn to account the ideas suggested and the various apparatus here referred to for the definite purposes of commercial telegraphy was Mr. Marconi, his original patent being 12,039 of 1896. His radiator was practically Righi's and his coherer a decided improvement on Branly's. The main difference between Marconi's apparatus and that of Lodge was the connection with earth and the employment of an aerial wire supported on a high mast.†

There was also a kite at the top of the aerial similar to that described by Edison in an expired patent which the Marconi Company have seen fit to purchase.

By these means—but more especially by increase of power—in addition to capital expenditure, Mr. Marconi gradually increased his range to considerable distances; and undoubtedly he and his business friends have done more than any man in developing the commercial possibilities of that system of telegraphy, which turns to account Hertzian waves. But the difference between Lodge's early achievements and that of Marconi is, after all, only one of degree, in which the dates of their respective work must be borne in mind.

Development of Radiotelegraphy.—Whilst Mr. Marconi was aiming at spanning oceans, Sir Oliver Lodge—happily for the public—was working in the direction of selectivity; and he (Lodge) can at any rate claim the first patent (11,575 of 1897) for syntonic, or selective, telegraphy. In this patent Lodge described how syntony could be achieved by the proper adjustment of capacity and inductance for producing a similar rate of oscillation (or tune)—i.e., a similar wave length—at the sending and receiving ends. Thus, by means of syntony we obtain a selective system which enables signalling to be effected from one or more stations of the same wave length without interfering with others within the same range. Most of the methods of radiotelegraphy now in substantial use are more or less selective in character: indeed, secrecy and immunity from interference being essential, any system which does not provide for syntony is altogether unsuited for practical requirements.

Direct connection with earth—usually with a view to increasing the range—renders really effective tuning out of the question overland and a source of some difficulty, under certain circumstances, by sea.

Long Distance Working.—No doubt one reason that the lay press have always spoken of Mr. Marconi's system as though it were the only form of wireless telegraphy is due to the fact that there is a sensational ring about Transatlantic wireless telegraphy which the Marconi Company have so constantly talked of, if not constantly performed. It was in the year 1901 that Mr. Marconi first received signals consisting of three dots (the letter "S"), said to have been repeated constantly. The "Times" was to be supplied with a daily column of news by this method, but after a few days the service was said to be closed. Since then, however, it is understood that further signals have been sent from the Marconi Company's station at Poldhu for some 2,000 to 3,000 miles—the power used being up to 200-h.p.—though the power available on board ships has not permitted signalling from them much beyond 300 miles.

The Marconi Company at one time claimed that their system would not interfere with—or be interfered by—other systems; yet now apparently, wishing to maintain their monopoly, they argue in the reverse direction—notwithstanding the advances they would presumably claim to have made in the interval. There can be no question, however, that high-power stations are bound to interfere—and undoubtedly have interfered—with other neighbouring stations, where low-power stations have not under otherwise similar conditions. Thus in order to avoid interference, big power stations of the shore to shore class will require in future not only to use different wave lengths if within 100 miles of any ship to shore range, but also to use less power—or, alternatively, to be shifted further away.‡ Indeed, at present it would seem as though the development of radiotelegraphy should be concentrated on ship to shore work rather than in attempts at long distance shore to shore work, which is prone to be a source of disturbance to the former, and for which there is not the same—if any—call.

* This was followed by some independent researches by Lord Kelvin on the one hand and Professor D. E. Hughes on the other.

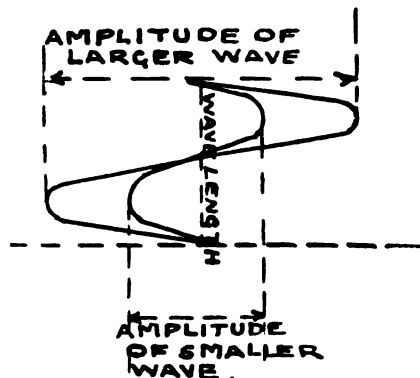
† There is, however, no mention of the latter in his (Marconi's) 1896 patent. Moreover, both this—the elevated antenna—and the use of the earth had been previously adopted by Dolbear on the one hand and Popoff on the other. Then, again, Lodge had specified the use of the earth in the "Philosophical Magazine" (page 49) for July, 1889, in the course of a paper on electrical radiation. Further, in his 1894 Royal Institution Lecture—as well as at the Oxford British Association meeting of the same year—Lodge also described the effect of an antenna in collecting the waves and bringing them to a coherer.

‡ Possibly this fact has something to do with the objections in certain quarters to the Convention and its regulations.

Hertzian Wave Principles.—I will now deal briefly with some of the cardinal principles of the various types of Hertzian wave telegraphy; and, in particular, to show how a more or less continuous ("undamped") wave is a definite improvement, for the purposes of telegraphy, on the wave derived from discharging successive sparks. In spark telegraphy of the "whip-crack" variety the waves are intermittent. The intensity of the discharge decreases so rapidly as to be practically reduced to nothing after a few oscillations—indeed, it is only about the first oscillation that is really effective at the receiving end. Thus, the discharges require to be successively renewed—all of which takes time. There are also the intervals during the dying away (or "damping") of each wave.

Mr. W. Duddell, F.R.S., and Mr. Valdemar Poulsen have of late independently overcome this difficulty.* They obtained a practically continuous train of impulses, the amplitude being more or less regular. A train of such waves being cumulative in effect—each wave impelling the preceding one—the working speed is higher under given common conditions. Then, again, though the amplitude of the waves is small, their continuity enables the adoption of a receiving circuit less sensitive to disturbing influences than is the case with "damped" waves. Thus, with such a system more stations can be worked within a given radius; and this is additionally the case for the reason that, the impulses being more regular, facilities for closer tuning are provided. Besides the Poulsen system, that due to Sir Oliver Lodge and Dr. Alexander Muirhead—though a spark method—is one in which the waves are emitted in a more or less unbroken train; and the same applies to the Telefunken system, due to the united efforts of Professor Slaby, Count d'Arco, and Professor Braun.

The figure below shows graphically some of the main features connected with Hertzian waves generally.



It will be observed that the length of the larger and smaller wave is the same. If the amplitude of the larger wave is double that of the smaller, there will be four times the energy in the larger wave. The analogy with sound is that of shouting *louder* in the "whip-crack" wave, and shouting longer (more prolongedly, or persistently), though less loud, in the continuous wave of smaller amplitude due to less energy.

Wave Amplitude.—Somewhat late in the course of this enquiry it was suggested by the Marconi Company witnesses that the delegates had omitted an important element in not specifying the wave amplitude in the proposed regulations.† In point of fact, by specifying the wave lengths to be used in different cases, and in limiting the power to 1 kilowatt, the Convention covers the ground of all technical requirements that it is desirable to specify. It is suitably left for the inventor to design apparatus with a sufficient persistency to secure good signals within the prescribed limits for preventing interference between stations; and the Convention has done well to avoid unnecessarily hampering him in any direction. There appears, indeed, to be some inconsistency in the Marconi Company's suggestion quoted above, following on their suggestion that "the Convention would have the effect of putting the art of wireless telegraphy into iron swaddling clothes." At one moment the Marconi Company seem to complain of too many regulations and, at another, of too few. Yet, if there were more, the "swaddling clothes" would be of steel instead of iron.

Interworking between Different Systems.—Another question which was raised by the Marconi Company only at the end of the enquiry was as to whether some of the various methods of radiotelegraphy using waves of different character are capable of working together. Mr. Marconi states that owing to the amplitude of the waves being different and the receiving apparatus different, even though using the same wave length, different systems are physically incapable of intercommunicating.

It is true that the "whip-crack" intermittent wave will not suit all receivers alike, and *vice versa*. This, however, is surely only a question of degree: and there can be little doubt that for moderate distances even the most continuous wave system and the most intermittent wave system could be made to work satisfactorily, whilst for longer distances the more the character of the emitted waves are in common the more satisfactory the working. Necessity was ever the mother of invention; and one cannot help wondering, in this connection, where we should have been in submarine telegraphy if no one had been able to adapt our working apparatus to our varying types and lengths of cable.

As a matter of fact, the Marconi intermittent wave system has, under stress of compulsion, been satisfactorily working, for upwards of a year, with the more or less continuous wave Telefunken system at a distance of 100 miles off Scheveningen, some 2,700 messages having been sent during that period. Then, again, in order to secure a station in the Argentine Republic, the Marconi Company have recently agreed to intercommunicate with *any* system.

From what one can gather, Mr. Marconi's "New System" which is said to be on the eve of introduction results from recognising the work of Duddell and Poulsen in continuous waves. But apparently even this "new system" is to be incapable of working with other systems; and the fact that it has been constantly mentioned in the *later* stages of this enquiry suggests an admission that the Marconi system of to-day is not after all "the one and only method of any value."

Summary of Conclusions.—By way of summarising my views on the subject of the enquiry I submit:—

(1) That it is desirable to establish a system of general intercommunication throughout the world between ship and shore for general maritime purposes; and that, the matter being an international one, the regulations must as in wire telegraphy be devised and administered internationally by the powers who are party to the Convention.

(2) That, whether we ratify the Convention or not, it will be ratified by most, if not all, of the other important powers.

* Mr. Duddell's researches of 1900 (like Professor Elihu Thomson's of 1892) were of a distinctly scientific order rather than especially aiming at a method of wireless telegraphy.

† If the amplitude of the wave is, in the opinion of Mr. Marconi, so important a matter for successful wireless telegraphy, it is strange that no mention of it appears in any of his patents.

(3) That the Convention as it now stands meets all requirements and will not in any way interfere with our position strategically ; but that, on the other hand, if we stood out, it is likely that we should be placed at some disadvantage in this and other ways.

(4) That, whereas we can at any time retire from the Convention at a year's notice, by joining later, we should lose what our Delegates have obtained for us.

(5) That we cannot expect to force any British system for general international use in such a case, even though we should naturally give a preference ourselves to a British system, of which there appears to be, at any rate, three.

(6) That unless any system is mutually agreed to be pre-eminently better than any other, general intercommunication between all systems employed is essential ; and that central control by any one, or a monopoly of any sort, would be highly undesirable.

(7) That in view of the history of radiotelegraphy and, in particular, that the art would not exist but for the researches of a distinguished German physicist—Heinrich Hertz—no monopoly can be claimed as a right by any individual inventor, however much he and his company may have done for the practical and commercial development of the art which will no doubt continue to bear fruit as heretofore. On the other hand, it is conceivable that some sort of compensation may be suitably granted by the Government to the Marconi Company in view of the exclusive privileges so far acceded to them.

(8) That the art is more likely to advance to the public good by equality of opportunity than by anything in the nature of a monopoly.

(9) That if anyone thinks he has a right to a monopoly in wireless telegraphy by virtue of his patents, he should establish that right in a Court of Law without undue delay.

(10) That different forms of wireless telegraphy apparatus, having substantially different effects, can be readily made to interwork.

Dr. Fleming's Memoranda.—Since preparing the preceding, I have read the supplementary memorandum of Dr. J. A. Fleming, which is, undoubtedly, a masterly piece of pleading on behalf of his company.

Dr. Fleming points out : (1) That there are various types of apparatus for transmission and reception now in use, and are likely to be. (2) That it is an accepted scientific fact that intercommunication involves identity of type of apparatus as well as in wave amplitude. (3) If we suppose several ships each equipped with a different type of transmitter attempting to communicate with a coast station, it is useless to say that the operator can adjust his apparatus to suit the arriving wave. Here (1) is, of course, correct ; but is rather an admission, in view of the Marconi Company's claim that all other systems of wireless telegraphy are infringements of Marconi's patent of 1896. The accuracy of (2) and (3) is disproved by the fact that a Lodge-Muirhead station in Burmah kept up communication with H.M.S. *Terrible* for nearly 600 miles, though the apparatus at one end was that of Lodge-Muirhead, and, at the other, the form of Marconi apparatus used by the Navy. Instances of the Marconi Company interworking by compulsion with other systems to meet the terms by which they (the Marconi Company) secured an agreement have already been set forth under a previous section in this memorandum.

Dr. Fleming comments on the fact that the regulations in the Convention do not limit the damping ; but surely no inventor would be likely to adopt more "damping" than is necessary ; on the contrary, he would naturally aim at reducing this to a minimum in the construction of his apparatus, by employing as little resistance as possible in the receiver and a fine subdivision of the wire in the leads and inductances.

Even though the organisation of the Marconi Company is alleged by them to be in so high a state of efficiency, Dr. Fleming pleads that legislation would be harmful because wireless telegraphy is "a growing child"—in other words, the Marconi Company are to be allowed to gradually ensure a monopoly for themselves. Dr. Fleming further purposes—and here comment is needless—that we should wait till wireless telephony "and other things which the future may have in store for us" are practically realised, before putting ship to shore communication on a universal basis.

As an argument against the Convention, Dr. Fleming quotes the Electric Lighting Act of 1882 ; but the objections to that Act were not based on any question of "scientific development being checked by legislation," but merely on the short period (21 years) before the purchase clause came into force. Further, Dr. Fleming seeks to draw an analogy between the somewhat academic matter of settling the real value of electric units and the purely practical movement for drawing up suitable regulations to put radiotelegraphy on a unified, universal, basis.

Dr. Fleming endeavours to contend that Mr. Marconi, in virtue of his 1896 patent, has the sole right to transmit electric (Hertzian) waves through the ether for the purposes of telegraphy. Even if Mr. Marconi had not been preceded by others in the use of antenna, and in the earth connection, Dr. Fleming is inaccurate in stating that all the rival systems he names adopt such methods, the fact being that other, and better, methods of transmitting Hertzian waves are employed with a view to satisfactory sympathy. With reference to point 4, in Dr. Fleming's contention under this head, it should be remembered that the Hertz oscillator existed before Marconi's first patent ; besides which there are records of Hertz using his oscillator for producing sparks with a view to transmitting electric waves. (Where would wireless telegraphy be, indeed, but for the work of this distinguished German scientist ?) What Mr. Marconi did was to substitute the earth for the lower half of the Hertz oscillator ; but this can scarcely entitle him to its sole use for electric signalling. Most of the other points I have already dealt with in the earlier (historical) portion of this memorandum ; but point six is a very remarkable claim, in view of work previously done, and made known, by others—notably by Branly and Lodge.

Dr. Fleming again presses the point that there was no reference to telegraphy in Sir Oliver Lodge's Royal Institution lecture of 1894. He (Dr. Fleming) had previously made much of this ; but, as I pointed out in "The Electrician" of November 16th, 1906 (a copy of which I hand in), there is no technical difference between "electric signalling" and "electric telegraphy" ; and, as a matter of fact, Marconi's first wireless telegraphy patent was for "Improvements in Transmitting Electrical Impulses and signals."

In this connection the views of other authorities at the time may be of some interest and utility. I, therefore, hand in a copy of "The Electrician" of September 17th, 1897, giving :—

- (1) The particulars of the original Marconi patent.
- (2) Photographs of Dr. Lodge's previously exhibited working apparatus.
- (3) General remarks in regard to the similarity of the instruments in each.

Dr. Fleming implies that Sir Oliver Lodge's developed system of radiotelegraphy is an infringement on that of Mr. Marconi, because, in using a condenser, he connects one pole to earth. As a matter of fact, Lodge does not use a condenser between his aërials and the earth. Apart from this, the suggestion that what Dr. Fleming describes as "inductivity earthed" is practically the same as direct connection with earth was disposed of some time ago by an experience of Sir Oliver Lodge's, using two horizontal network areas of 9 ft. square. When tuning, he found that if the lower area was 7 ft. from the ground and the upper 47 ft. above it, he needed a certain power to work through a certain distance. He then raised the whole, so that the lower area was 40 ft. up and the upper area 80 ft., i.e., still 40 ft. between them : the same good signals were obtained at some distance, whilst distinctly less

power was consumed. Indeed, this experiment conclusively shewed how the interposition of a condenser improves the tuning capabilities of the system, and how detrimental direct earth connection is to syntonic work. Yet it is the earth connection, together with the lofty aerial, that Dr. Fleming especially claims for Mr. Marconi as the essential feature of success in wireless telegraphy. On the other hand, there is the curious fact that Mr. Marconi's patent does not claim either the vertical wire *per se* or the earthing of the wire *per se*. What Mr. Marconi claims is receiving with an earthed coherer only when the transmitter is also earthed. Apart from the aforesaid previous use of the earth by others in fundamentally the same way, all systems in which there is no direct earth connection, but in which syntony is effected, must in any case come quite outside Marconi's first (1896) patent, which revealed no method of tuning.

Dr. Fleming repeatedly assumes that the Marconi system was a practical one in 1896 and 1897; but no disinterested expert would have described it as such for some years later—about 1903—when self-decohering and tuning apparatus was introduced, based on Lodge's syntonic work.

Dr. Fleming finds it desirable to state that "the full explanation of syntonic telegraphy, or the tuning of electric circuits, was fully given long before the date of Sir Oliver Lodge's 1897 British patent." Dr. Fleming goes on to say "They were fully set out in two papers published in 1895 in Germany by Oberleck (Wiedemann's Annalen, Vol. 25, p. 63) and by Bjerknes (Wiedemann's Annalen, Vol. 55, p. 21)." The reply to this is that the two papers referred to are on the *mathematical theory* of electric resonance. Lodge published the theory long before 1895, notably in 1889, when his syntonic Leydenjar experiment was first exhibited at the Royal Institution (See Lecture 3 at the end of his "Modern Views of Electricity," also the special publication in "Nature," Feb. 20th, 1890, Vol. 41, page 368.) Uncertain lest his statement on this score will suffice, Dr. Fleming also proceeds to narrate how he was quite unable to make Lodge's syntonic system work—for purposes of demonstration to certain German patent office officials. "The apparatus was made in accordance with Lodge's specification, and, whilst this failed, that made in accordance with Marconi's worked perfectly." It is not improbable that if Sir Oliver Lodge had been present, the result would have been different. But be that as it may, it is no proof whatever that the Lodge 1897 patent is not a master patent for syntonic Hertzian wave telegraphy because it did not stop someone three years after its date from getting a patent for a particular mode of constructing one of the pieces of apparatus used in Lodge's syntonic system.

Dr. Fleming thinks that there is an inconsistency in people claiming to have a system with great selective capabilities, and yet being in favour of a Convention for preventing confusion and disturbance of one station by another. But—as Dr. Fleming must know—however efficient the tuning, without regulations limiting the power and specifying the distance between stations, disturbance is bound to ensue, just as a violin (or tuning fork) will be set into a state of vibration (making a rumbling sound) when placed near a big working organ, though the sound given forth will be much more definite when the organ happens to hit off the particular tune of the violin string.

Dr. Fleming concludes his lengthy "Supplementary Memorandum" by dealing with the legal aspect of the situation. He says, "If the exclusive right of use of these fundamental elements (referring to the Marconi system) should prove to be the property of the Marconi Company when tested by litigation, it is unavailing to speak of it as an ingenious monopoly, for it is a recognised and legal monopoly conveyed by the Crown in virtue of the Patents Acts." Quite so; but the Law Courts is the only possible scene for such test by litigation if the Marconi Company propose to establish their right to a monopoly more than 10 years after their first patent. Dr. Fleming goes on to remark "It is surely then a fair argument to say that the Government, having conveyed these potential patent rights to an inventor, and placed upon him the onus of defending them, has an obligation to do nothing to render his task more difficult, least of all impossible." But Dr. Fleming forgets, apparently, that the Government has also "conveyed these potential rights" (for "Syntonic Telegraphy,") to Sir Oliver Lodge; and as it is only *Syntonic* Telegraphy that is contemplated for the purposes of the Convention, this would even more apply here—if at all.

The Marconi Company seem to have already put themselves on the wrong side of the law in regard to Clause 10 of their agreement with the Post Office; for surely "without prejudice to their patent rights" can only have been inserted to imply that by entering into the undertaking they (the Marconi Company) were not waiving the right to bring an action for infringement against any of the parties with whom they might, under this clause, have to work with. If the Marconi Company meant anything else—such as is now suggested—surely they had no right to enter into an agreement (containing this clause) whereby they obtained from the Post Office certain concessions without afterwards adhering, on their side, to this part of the agreement.

I submit that the published work of Heinrich Hertz on the one hand, and Sir Oliver Lodge on the other, covers the fundamental principles of signalling by means of Hertzian waves; and that the instruments employed in practice are covered by Hertz, Righi, Branly and Lodge. Granting this, it would seem that the only lines on which the Marconi patent of 1896 could be upheld in a court of law is "as a novel combination of old instrumentalities"; but be it remembered that the combination did not provide *Syntony*, or any attempt at it.

In one breath Dr. Fleming says all the other systems are infringements on Marconi's, in another he says they are so different that they will not work together, and yet in another that as wireless telegraphy grows up there will be numerous different types, this latter notwithstanding his claims that Marconi's 1896 patent covers the ground for all wireless telegraphy using Hertz waves from Hertzian oscillators. Why he introduces all these conflicting arguments it is difficult to see, unless it is on the principle that where one argument does not appeal another may.

The principal difference between my views and those of Dr. Fleming is that he argues that the development of radiotelegraphy will be best ensured *without* the practical test of intercommunication between different systems. I, on the other hand, venture to think that the same effect will be more surely achieved by the policy of equality of opportunity supervised by disinterested officials; and I fancy that Dr. Fleming's opinion is due to a belief that by adhering to a policy of non-intercommunication, his company can ensure a monopoly for themselves by forcing their system everywhere.

APPENDIX No. 14.

LETTER received by the Select Committee from the Cunard Steamship Company.

Dear Sir,

8, Water Street, Liverpool,
17 May, 1907.

We beg to acknowledge the receipt of your letter of the 14th instant, and note that the Committee on the Radiotelegraphic Convention would be glad to hear the evidence of a representative of the Cunard Steam Ship Company, Ltd., with regard to the subject of their inquiry. We are much obliged for the opportunity afforded for putting our views before the Committee, but are sorry that we are unable to depute anyone for the purpose. We may add that we wrote a letter to the Board of Trade on December 15th, 1906, as per copy enclosed, giving our views upon the subject, and that we are still of the same opinion. To this letter we would only add that our attitude to the Wireless Telegraph Convention would be favourable if the different systems could be subordinated to one control, and rules made which would prevent any confusion or bias or partiality in dealing with the messages from the competing systems.

Yours faithfully,
A. D. Mearns.

E. Childers, Esq.,
Committee Office, House of Commons,
London, S.W.

[ENCLOSURE in above letter.]

Sir,

8, Water Street, Liverpool,
15 December, 1906.

We have given some attention to the subject of Radiotelegraphy on steamers as it will be worked if the provisions of the Berlin Convention are ratified, and beg to mention the following points which appear to us to be worthy of consideration :—

If coast stations are to receive messages from all ships using wireless apparatus, of whatever nature, there are bound to be misunderstandings and differences between operators on the ships, on account of the conflicting interests involved.

Unless it be possible to arrange that all systems of Radiotelegraphy in commercial use on ships and shore shall be subject to one authority, it is useless for the coast stations only to be so controlled, and for this reason—that two or more ships with competing wireless systems within the range of one coast station, refusing to give way to each other, will nullify each other's communications to the coast station.

We understand that the agreement is subject to confirmation by the different Governments concerned, and that His Majesty's Government have also retained the right of exempting certain stations from the provisions of the Convention, so far as regards communication between ship and shore stations. As the experience we have had in connection with Radiotelegraphy during the last five or six years emphasises the desirability of ships being able to communicate with shore stations responsible to the same authority as that controlling the system on the ships, we venture to hope that His Majesty's Government will bear this in mind when deciding upon their course of action in connection with the ratification of the terms of the Radiotelegraphic Convention.

Your obedient Servant,
(Signed) A. D. Mearns,
For General Manager.

The Secretary,
Board of Trade, London.

I N D E X
AND
DIGEST OF EVIDENCE
TO THE
R E P O R T
FROM THE
SELECT COMMITTEE
ON THE
RADIOTELEGRAPHIC
CONVENTION.

SESSION 1907.

Ordered, by The House of Commons, to be Printed,
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Attitude of Colonial Governments is generally unfavourable to intercommunication, but Home Government has urged the other view, *Marconi* 3078, 3079—Witness reiterates statement that Colonial Office have hampered the Marconi system in the Colonies, possibly influencing Canada to licence the De Forest system, *ib.* 3146, 3157.

Importance of freedom of action reserved for the Colonies with regard to the Convention, *Rep.* xvii.—Conclusion that the Convention has been framed with due regard to all Colonial interests, *Rep.* xxvi.

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Conference, First Berlin (1903).—Questions of international interest leading to first Conference; proposals for international regulation not accepted by Great Britain, the Postmaster-General having then no control over ship-to-shore communication, *Babington Smith* 36-39—Results of this conference recorded in Minutes and a protocol to form the basis of a subsequent Convention, *ib.* 40-41—Names of delegates, *ib.* 81-85.

Reserved attitude of British delegates at the Conference; anxiety of Admiralty to establish control, *Daniell* 596-600—This Conference merely preparatory to further conferences, *ib.* 794-798—The First Conference and its outcome; attitude of the British delegates, *Rep.* viii.-x.

Conference, Second Berlin (1906).—Acceptance of invitation to second Conference; careful instructions to delegates to insist on Admiralty stipulations; names of delegates to the Conferences, *Babington Smith* 78-85—As to the documents signed—Convention, additional undertaking (this not signed by Great Britain), final Protocol, service regulations, &c., *ib.* 86-91—Unanimity of British delegates as to points raised, the naval interests being always predominant, *ib.* 332-335.

Complete harmony of the British delegates; a distinct and separate instruction to Admiralty delegates to refuse signature unless naval interests were safeguarded, *Daniell*

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Conference, Second Berlin (1906)—continued.

Daniell 612-630, 634, 635, 704, 705, 807-809—Practical unanimity of the Conference as regards intercommunication; the Convention would have been generally signed if Great Britain had abstained, *ib.* 631-633.

The Marconi Company should have been represented at the Conference, *Hall* 1405, 1406, 1746-1748—Complaint that the British delegates did not insist on retention, by every State, of right of exemption and on extra rate for messages intercommunicated; nor yet on restriction of ship-to-ship telegraphy, *ib.* 1406-1408—The British delegates might have prevented any Convention; many foreign delegates were opposed to it, and privately expressed their view that intercommunication is impracticable, *ib.* 1410-1416—Change of view of principal French delegate who at first favoured the Convention, *ib.* 1633-1637.

Absolute unanimity of the delegates as to the desirability of the Convention, *Gavey* 1984-1994—Witness suggests that the Conference was due to complaints made by the German Emperor and the King of England, *Heaton* 2722-2735, 2766—Explanation of statement made at the Conference with the object of gaining acceptance of proposed regulations and of power of exemption, *Bethell* 3687-3691.

Inter-departmental discussions preliminary to the Second Conference; conditional decision in favour of intercommunication, *Rep.* ix.—Instructions to delegates; list of delegates and lists of documents signed, *Rep.* ix., x.

Convention, Probable Results of.—No injustice done to Marconi Company by the Convention, but distinctly to the contrary, *Babington Smith* 468, 469, 472-474—Advantages that would accrue to the country commercially and in time of emergency *ib.* 470, 471, 488, 489—The Convention will not directly affect war arrangements, *Daniell* 637-639.

Beneficial effects of Convention on naval and commercial shore stations; this last shown by improvement in wireless telegraphy due to friendly working between North Foreland, Flushing boats and Scheveningen, *Loring* 1079-1093—Witness gives details tending to prove that the Marconi Company will gain by full acceptance of the Convention, but will be materially injured by non-adherence of Great Britain or by themselves assuming a hostile attitude, *ib.* 1115-1120.

Ratification of Convention will probably result in erection of stations on French coast (the regulation as to calling the nearest station not being obligatory), and so in loss of traffic, *Hall* 1421-1426—Further as to aforementioned regulation, witness contending that it is affirmed only as a general principle and will not be considered imperative, *ib.* 1427-1436—Probable pressure on shipping companies by foreign Governments; this may not be successful while exemption is possible, *ib.* 1520-1524.

The Company would not join in a "wireless war" in case of ratification, *ib.* 1614-1616—Ratification would arrest development of the Company and benefit foreign companies; this the object of Germany in proposing the Convention, as shown in German newspapers, *ib.* 1626-1632—Witness contends that ships of adhering countries need not intercommunicate and that Governments would not enforce acceptance; ships retaining Marconi apparatus would use Marconi stations, but the system would be disturbed; this argument applied to French and German ships, *ib.* 1685-1699.

German companies would reap benefit of Marconi organisation without incurring expense, intercommunication would involve confusion, and end in the service being conferred on a German company, *ib.* 1724-1731—Ratification would not result in any effective deliberate interference, *ib.* 1732-1736.

Use of Marconi apparatus by French and German vessels for present convenience; non-ratification by Great Britain would involve establishment of Continental stations and pressure from Continental Governments; these Continental stations would be an international obligation, not a paying business, *Gavey* 1860-1875—Preliminary decision of France to erect stations will not affect Great Britain if she ratifies; otherwise foreign lines must abandon Marconi apparatus, and traffic with British stations, *ib.* 1876-1879.

In case of ratification, the Marconi Company may not suffer; otherwise, foreign liners must remove Marconi apparatus to comply with regulations as to intercommunication, *ib.* 1893-1904—A "wireless war" would end disastrously for Great Britain, *ib.* 1905-1907.

A multiplication of stations is to the public interest, *Lodge* 2264—A "wireless war" would be possible, and while the necessity of complying with regulations would tend to hinder its development, still the non-adherence of Great Britain would tend to aggravate it, *ib.* 2280-2293, 2298, 2335-2337.

An English company could not initiate a "wireless war," but foreign Governments would be induced by anger and pique to alter the Convention to render "war" possible; or perhaps it might be without alteration of the Convention, *Muirhead* 2486-2503 246—IND.

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—The British preponderance of shipping would not render such a “war” unlikely, but might lead foreign Governments to set aside their own convenience in order to interfere deliberately, *ib.* 2504–2522.

A vessel using power to five kilowatts could, in case of non-adherence, derange the working of British stations, whether wilfully or necessarily in order to communicate with its own stations, *Maskelyne* 2695–2705—The Convention will tend to discourage systems which cannot intercommunicate; without a Convention there would be free competition, and witness would not object to free issue of licences, *Marconi* 2946–2954—Witness understands the Convention to provide for no experimental licences for ships; additional experimental apparatus might be prohibited, *ib.* 3014–3020.

The effect of the Convention upon foreign ships bearing Marconi apparatus would depend upon arrangements with their Governments; witness opines that such ships will still prefer to communicate with Marconi stations and that foreign Governments will erect such stations under their power of exemption, *ib.* 3086–3103, 3113–3115—A Convention could hardly be effective which did not include the British Empire; and foreign Governments would find it to their interest to exempt stations, *ib.* 3104–3109.

Communication would be prevented unless modifications or improvements of apparatus are divulged, and thus the Convention would be inconsistent with due regard to secrecy, *ib.* 3135–3145—The Convention would impede the science and art of wireless telegraphy by impeding adoption of non-communicating stations, *ib.* 3171–3174—Marconi system has not suffered from confusion, nor will the best systems; prospects of a “wireless war” have no terrors, *ib.* 3228–3235.

The Convention would not check progress, *Prece* 3413, 3414—The Convention would tend to encourage progress and would communicate new improvements, thus introducing “uniformity of practice” as in wire telegraphy, *ib.* 3508, 3509—Adhering nations must adopt a communicating system; if Great Britain adheres, this will encourage British stations under international regulation and will diminish confusion, *ib.* 3546–3555—Further, existing systems will be free to develop and new systems will be encouraged, the regulations being sufficiently elastic, *ib.* 3556–3561.

The Convention will establish an organisation for general communication; witness shows how non-adherence by Great Britain will lead to a general desire to participate in an agreement over which she has no control, *Payne* 3635, 3636—The Convention minimises risk of confusion, *Bethell* 3801, 3802—Other nations are actuated by desire to support their own systems, but hitherto have remained inactive in view of the Convention; in future greater pressure will be employed, *ib.* 3825–3833.

Dislocation of traffic will be permanent, not temporary, and will be due mostly to promiscuous working, *Hall* 3901–3905—Convention will secure transmission of messages; resolutions in favour of radiotelegraphic services, *Bright* 4034—Probable reduction in tariff, as shown by analogy with Atlantic cable charges, *ib.* 4051.

See also *Developments of Radiotelegraphy. Imperial Defence. Intercommunication. Monopoly. Naval Interests.*

Convention, Radiotelegraphic.—Acceptance of Convention can be made compulsory in other parts of the Empire, *Babington Smith* 77—General scope of Convention as affecting shore stations for public correspondence and all ship stations, men-of-war being enjoined only to refrain from unnecessary interference and to give priority to distress signals, *ib.* 92–99—The Convention ignores shore-to-shore telegraphy and affects ship-to-ship telegraphy only in the “Additional Undertaking”; this regarded by Great Britain as impossible to enforce, *ib.* 100–103.

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(2) Rules of working—rules of general application as regards signals, calls, counting of words; these practically identical with rules of the Telegraph Convention; use of International code of signals, *ib.* 119–121—Details of rules as to calls, priority of answer, signals and other non-controversial points, *ib.* 122–125—Important provision that ship station shall, unless otherwise instructed, open communication with nearest shore station, *ib.* 126–130.

(3) Charges and accounts—system of accounting applied to collection of dues; maximum charges for ship and for shore stations, *ib.* 131–133.

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(4) Publication of information necessary for communication—particulars of call-signal, range, wave-length &c., to be furnished by controlling State; no such obligation as to naval or military stations, *ib.* 134, 135, 137, 138, 140—Stations may be assigned to particular and limited services, *ib.* 136—Obligation of secrecy on operators, *ib.* 139.

(5) Prevention of interference and confusion—rules as to calling, repetition of call, order of communication, minimum expenditure of energy, superfluous signalling, wave-length, *ib.* 141–149—Every station to be licensed by the controlling Government under certain specified conditions; means of enforcing these conditions and of indentifying and securing punishment of offending stations, *ib.* 150–157.

(6) Intercommunication between different systems—this compulsory except for stations with restricted services and for stations specially exempted by Government, *ib.* 158–162—This power of exemption intended to facilitate division of traffic, experiments, avoidance of confusion, adoption of future developments, *ib.* 163—Distance between exempted and non-exempted stations, *ib.* 164.

Adhesion and Denunciation of the Convention—the latter on a year's notice; these applying separately to a country and its colonies; to self-governing colonies, independently; to Crown Colonies, on a distinct decision of the Home Government, *ib.* 179–194—As to dates of future Conferences and voting power; common consent necessary for modification of Convention in vital points, *ib.* 195, 196.

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Attitude of Admiralty towards the *Project de Convention* of the German Government, *Daniell* 610, 611—Participation of Great Britain in drafting of Convention; provision for future modifications, *ib.* 697–699, 876–884—General anxiety for a Convention, *ib.* 885.

The Convention might be feasible if all systems were equally meritorious, if finality were reached, and if patent litigation had cleared the way, *Marconi* 3021–3024.

Primary object of the Convention, and its main provisions; chief objections raised to them by witnesses, and conclusions reached by the Committee, *Rep.* x.–xvii.—Adhesion and denunciation of the Convention, *Rep.* xvii.—The important part taken by the British delegates in the framing of the Convention, *Rep.* xxvi.

See also *Naval Interests. Regulations, International Service.*

Convention, Ratification of.—A decision not to ratify the Convention would probably lead to irritation, deliberate interference and retaliation; objectionable alterations might be made in the Convention; and Great Britain must be in a worse position eventually, *Babington Smith* 320–329, 380, 381—Again, erection of stations on British territory would be discouraged, and on neighbouring foreign territory encouraged, *ib.* 330.

Non-adherence to the Convention would be even more disastrous than a disruption of the Postal or Telegraph Convention, *ib.* 341–346—The Convention as modified is desirable and advantageous, *ib.* 347–352, 478–480, *Daniell* 722–725—A new Convention could be concluded omitting a recalcitrant country, *Babington Smith* 372, 373, 419, 420.

Non-adherence would probably react disastrously, leading to friction and interference, *Davies* 547–550—Non-adherence by Great Britain might result in a Convention on the original lines, *ib.* 874, 875.

Ratification will diminish confusion and organise traffic, *Payne* 957–959, 994–996—Importance of early ratification permitting of more attention to detail, *ib.* 964, 965, 1027–1030.

Ratification would be beneficial to both commercial and naval stations, *Loring* 1107, 1108—Evidence as to the views of foreign delegates and of their Governments; legislation needed before ratification is possible, and this is not certain, *Hall* 1509–1519—The importance of Great Britain and Italy would obviate disadvantage from non-ratification, *ib.* 1712, 1713.

Certain ratification by Continental nations, *Garry* 1832—In the event of non-ratification by Great Britain, foreign commercial interests could not outweigh national obligations, *ib.* 1976–1978—Postponement of ratification would be as dangerous as a refusal, leading to the same results, *ib.* 1979–1981.

Other countries are already organising their systems in preparation, *ib.* 1982, 1983—Ratification will ultimately be imperative, *ib.* 1984–1994—List of ships under various systems used to show that non-ratification must tend to destroy the Marconi system unless it intercommunicates, *ib.* 1994–2011.

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Opinion that the Convention is necessary and worthy of ratification, *Lodge* 2204–2206—Non-ratification or postponement would probably involve a later adherence at a disadvantage through non-participation in the framing of regulations, *ib.* 2236A–2238, 2258–2261, 2312, 2313—Wireless telegraphy is in its infancy, so that any system must be encouraged; hence a Convention is essential to Great Britain, who should participate in framing regulations, *ib.* 2268–2279.

The Convention and Regulations entirely satisfactory and to the advantage of Great Britain, *Muirhead* 2399–2402—British preponderance in shipping accentuates desirability of ratification to avoid a possible “wireless war,” *ib.* 2421–2435—Ratification would benefit the Marconi Company as much as others, while it would benefit Great Britain, whose delegates dictated much of its wording, *Muskelyne* 2567–2569.

The Postmaster-General though rightly in absolute control of wireless telegraphy is pressing unduly for ratification, *Heaton* 2736–2742—The great objections to ratification are the confusion necessarily arising from the use of 73 systems, and the relinquishment of geographical advantage, *ib.* 2754–2759—Witness urges delay in view of our possession of the best system, other countries having everything to gain; the opinion is not on technical, but on practical grounds, *ib.* 2765–2768, 2771–2776.

Competition, when it comes, should be free, and will lead to economy, but ratification is absolutely unnecessary at present, *ib.* 2812–2817—Approval of the Convention on humanitarian, commercial and general grounds, and as releasing Lloyd’s stations from obligation not to communicate, *Phillips* 2838–2842, 2865–2868.

Great Britain will gain by non-adherence in (1) the use of any wave-length at option; (2) the encouragement of free competition, which is incompatible with compulsory intercommunication; (3) avoiding the difficulty of locating a source of error and of obtaining redress from the licensing Government, *Marconi* 3025–3035—This last-mentioned point developed, showing the natural tendency of a Government to delay punishment and shield its operators; this might lead to retaliatory measures, *ib.* 3036–3045.

The Convention is unjust to patentees and will lead to endless litigation; it is technically impracticable and will impede wireless telegraphy, *ib.* 3061—Ratification might be advantageous to Germany, but would be injurious to England and to the Marconi Company, *ib.* 3257–3259—Opinion that several countries will refuse to ratify, *ib.* 3268–3273.

Ratification is essential in the interests of commerce and of the travelling public; a personal experience of the uses of wireless telegraphy; the Convention will break the Marconi monopoly and will be as beneficial as is the Telegraph Convention in organising and regulating, *Prece* 3331–3338—Non-adherence would invite derision and would sacrifice England’s command of radiotelegraphy; adherence would be to the advantage of all companies, not excepting the Marconi, *ib.* 3420–3431—Non-adherence would destroy British traffic by inducing other countries to organise their own services and neglect British stations; the Convention would facilitate business by providing suitable regulations for intercourse, by establishing power to intercommunicate, and thus encouraging technical developments, *ib.* 3526–3545.

Advantages of non-adherence are (1) freedom to use any wave-length which may suit the public interest or be necessary for various systems; (2) the possibility of guaranteeing the interests of a world-wide dominion; (3) the encouragement of technical improvements, *Fleming* 3623–3626—The two great alternatives were a British monopoly, now impracticable, and a Convention to organise general communication; the latter must be adopted, *Payne* 3657, 3660—Other nations will certainly ratify; non-adherence by Great Britain will inevitably lead to altered conditions detrimental to British interests, *Bethell* 3812–3115, 3819–3824.

Non-ratification involves strong competition, interference and combined antagonism; the Convention will be ratified by other countries, and if it be found impracticable, a country can withdraw, *Bright* 4039, 4040.

Ratification is desired by companies other than the Marconi, and will be carried out by other Powers whatever the position of Great Britain, *Rep.* xvii., xxi.—A full discussion of the three alternatives—ratification, rejection, postponement—leading to a conclusion in favour of ratification, *Rep.* xxiii.–xxvi.—The idea of a “wireless war” is entirely hypothetical and ridiculous, *App.* No. 2, p. 3—The case against ratification stated in summarised form, *ib.* pp. 3, 6, 7.

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Cunard Line.—Objection of Cunard Line to the Convention, *Hall* 1520–1524.

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The Convention will not directly affect war arrangements, 637–639—Naval interests directly affected only by articles preventing interference “as far as possible” and referring to signals of distress, 640–646—Provision for use of secret apparatus and for exemption of stations; advantages of the latter power, 647–652.

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The Convention will retard technical development and is unjust in depriving a Company of an industry created without official help, *Hall* 1388, 1389—Wireless telegraphy cannot become important for any but large ships, *ib.* 1417–1420.

Developments of wireless telegraphy will render the application of the Convention almost impossible, *Marconi* 2957–2963—New improvements are best developed in actual practice; doubt as to possible experimenting under the Convention, *ib.* 3236–3241—Compulsory intercommunication will hinder scientific progress; other systems should develop in other areas, *Hall* 3993–3998.

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Meeting anterior to the 1906 Conference resulting in a decision in favour of exemption; this step taken partly through sympathy with Marconi Company and desire to utilise their stations, not because of technical difficulties; the position of the Admiralty thus secured, *Bethell* 3671–3686—Exemption should be confined to a few important stations where traffic is densest, *ib.* 3720–3723—Suggestion in August 1906 of exempted stations, resulting from deliberations; unexpected general desire for intercommunication shown at Conference, *ib.* 3738–3748.

As to the establishment of communicating in lieu of exempted stations, the rejection of right of exemption by certain nations and its effect on communication with Mareconi stations, *ib.* 3773–3789—Reasons for this aforesaid rejection, and its probable result, *ib.* 3790–3795, 3800.

Contention that provision for exemption is absolutely inadequate from the point of view of dislocation and from the scientific standpoint, *Hall* 3893–3896—Exemption will not encourage an interest in progress and technical improvement, *ib.* 3901, 3902.

The right of exemption, its introduction at the instance of the British delegates, and its extreme importance; position of those countries which refuse to avail themselves of this right, *Rep.* xviii.–xx.

See also *Intercommunication*. *Regulations, International Service*.

Experimental Illustrations.—Experimental illustrations arranged, *Gavey* 1950–1954—Consideration of the types of waves thus illustrated, *Rep.* xiv.

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Fessenden

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Fessenden, Prof.—The statement that all inventors save witness favour inter-communication is contrary to views expressed in a letter written to the Times by Prof. Fessenden, who held a Post Office licence for Macrihanish, *Marconi* 3260–3267—The letter aforesaid denounces the Convention as impracticable, injurious to scientific progress and unnecessary; full text of the letter amplifying these denunciations, *ib.* 3263.

Fleming, Dr. J. A., F.R.S. (Digest of his Evidence).—Witness is generally an expert in telegraphy and particularly Scientific Adviser of the Marconi Company, 3610–3611—Points of similarity and of difference between various systems; intercommunication is possible by the sacrifice of peculiar features of systems (and thus of their efficiency); the four qualities, wave length, damping, amplitude, interval between wave-trains, 3612–3622.

Advantages of non-adherence are: (1) freedom to use any wave-length which may suit the public interest or be necessary for various systems; (2) the possibility of guaranteeing the interests of a world-wide dominion; (3) the encouragement of technical improvements; in advocating limits of wave-length the Admiralty have not shown foresight, 3623–3626.

France.—Consideration of a possible private agreement between France and Great Britain, whether the former ratifies or not *Gavey* 1961–1975.

See also *English Channel*.

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Gavey, J., C.B. (Digest of his Evidence).—Witness was Engineer-in-Chief and Electrician to the Post Office, and a delegate to the Conferences of 1903 and 1906, 1782–1784.

Systems of wireless telegraphy, previous to that of Marconi depending on radiation of Hertzian waves, 1785–1791—Development of the subject by Clerk-Maxwell, Hertz, Lodge, Jackson, and Marconi; facilities granted to Marconi by Post Office, 1792–1794—Defect of the original Marconi system; limited extent to which this disturbance has been remedied by adjustment and tuning, 1795–1799.

In the narrow seas chaos would reign without international regulation; cases illustrating reception of messages by stations far distant from their destination, 1800–1803—Outside certain limits, interference can be reduced by allotment of wave-length, and by special receiving apparatus; the Convention aids this by specifying wave-lengths, 1804–1806—Distance between stations less important than strictness of regulation, 1807–1810.

Efficiency also ensured by articles demanding syntonised apparatus, specifying minimum speed, limiting energy employed, licensing operators, dealing with breaches of regulations and regulating method of communication, 1811–1813—Non-ratification would involve interference from ships fitted with more powerful apparatus to communicate with continental stations, and this without redress, 1814–1818, 1823–1827, 1846–1848—Non-interference at present due to expectation of Convention and not to Marconi organisation, 1819, 1820.

Regulations will be complied with in self-interest, a Convention being inevitable, 1821, 1822—Preliminary negotiations between Post Office and Mr. Marconi, 1828–1831—Certain ratification by continental nations, 1832.

Great value of right of exemption; evidence as to the possibility and desirability of exercising this right on the South Coast, 1833–1844—Approximate cost of a station, 1845—Interference anticipated when England establishes its own system, 1849.

The adoption of the Morse system of telegraphy is not parallel, as in wireless telegraphy the need is of regulation, not a uniform system, 1850—Progress in organisation of systems by foreign nations, especially in America, 1851–1859—Use of Marconi apparatus by French and German vessels for present convenience; non-ratification by Great Britain would involve establishment of continental stations and pressure from continental governments; these continental stations would be an international obligation, not a paying business, 1860–1875.

Preliminary decision of France to erect stations will not affect Great Britain if she ratifies; otherwise foreign lines must abandon Marconi apparatus and traffic with British stations, 1876–1879—Simplest control is by a monopoly; this being impossible,

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impossible, the best is by Convention affecting all operators alike, 1880-1887—Reasons which would render exemption of stations judicious, 1888-1892.

In case of ratification, the Marconi Company may not suffer; otherwise, foreign liners must remove Marconi apparatus to comply with regulations as to inter-communication, 1893-1904—A "wireless war" would end disastrously for Great Britain, 1905-1907—Ship-to-ship communication is regulated not to interfere with ship-to-shore; the regulations generally are adequate, 1908-1916, 1948, 1949.

Each government will enforce the regulations in its country; the Berne Bureau will not develop into a controlling body, 1917-1923—How a shore station could prevent interference arising from ship-to-ship communication, 1924-1931—Position of a British vessel as regards ship-to-ship messages, 1932-1937.

Any message liable to be read at stations other than intended, both now and in event of ratification, 1938-1944—Experimental illustrations arranged, 1950-1954—Further evidence as to interference on South Coast in case of non-ratification, 1955-1960.

Consideration of a possible private agreement between France and Great Britain, whether the former ratifies or not, 1961-1975—In the event of non-ratification by Great Britain, foreign commercial interests could not out-weigh national obligations, 1976-1978—Postponement of ratification would be as dangerous as a refusal, leading to the same results, 1979-1981.

Other countries are already organising their systems in preparation, 1982, 1983—Ratification will ultimately be imperative; absolute unanimity of the delegates as to the desirability of the Convention, 1984-1994—Lists of ships under various systems used to show that non-ratification must tend to destroy the Marconi system unless it intercommunicates, 1994-2011.

Witness deals with Mr. Cuthbert Hall's argument that interference would arise from use of different systems, that the regulations are inadequate, and that redress would be difficult to obtain, 2012-2021—Witness contravenes the statement that companies other than the Marconi do no important commercial work, 2022-2027.

Germany.—As to the probable reasons influencing the German Government to propose a Convention, *Daniell* 850-858—The Convention proposed by Germany to arrest a British monopoly of wireless telegraphy; failure of attempts by foreign governments to carry on a public service, *Hall* 1381-1383—The statement that Germany desires to crush the Marconi Company supported by despatches and articles, *ib.* 3899, 3900.

See also *Convention, Probable Results of.* *Dr. Slaby.* *Marconi Companies.*
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Gibraltar.—Four distinct courses possible at Gibraltar, *Loring* 1171, 1172.

See also *Interference.*

H

Hall, H. Cuthbert. (Digest of his Evidence.)—Witness, who is managing director of the Marconi Company, gives details of its formation, capitalisation, and early dealings with Government Departments; also of the Marconi International Marine Communication Company, its constitution and early policy, 1245-1257—Determination to carry on a public telegraph service and initial steps in this direction, 1258-1260.

The exclusive agreement of 1901 with Lloyd's; friction caused by a private arrangement of Lloyd's with the Admiralty, 1261-1266—The two agreements with the Admiralty; suggestion that the Admiralty copied Marconi apparatus; a misprint as to amount of royalty paid, 1267-1277—Details of agreements with the Canadian and foreign Governments, 1278-1282.

Alleged colourable imitations of Marconi apparatus, especially by Dr. Slaby, a scientist with credentials from the German Government; no action for infringement considered necessary in these cases, but two successful actions in United States, 1283-1297—Wireless telegraphy made a Government monopoly in many colonies and foreign countries, 1298-1301.

Difficulties overcome in respect of transmission of messages between telegraph offices and Marconi stations, 1302, 1303—Proposals for amalgamation with other companies rejected, they showing little business except the sale of instruments alleged to be copied; subsequent diplomatic action of German Government and proposal of Convention, 1304-1310.

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Hall, H. Cuthbert. (Digest of his Evidence.)—continued.

Establishment of the only public wireless telegraph service by Marconi Company; figures showing tonnage of ships, number of words transmitted, percentage of error, distribution of stations; comparison with business of other companies, many of their stations doing no public traffic; details of American stations, 1311-1331—Policy of Marconi Company justified by results; stations on all first-class liners despite difficulties of licensing and opposition of foreign governments, 1332.

As to contracts with German and French shipping companies; suggested *impasse* on ratification unless right of exemption is exercised, 1333-1349—Non-intercommunication is justified by the terms of contracts, and is to the public interest; the centralised control provided by the Convention is a co-operation in competition, and control against interference cannot be efficient even with the element of licence; the Marconi bonus system effective in this direction, 1350-1363.

Further as to the efficiency and complete control of the Marconi system; other companies might operate in particular spheres and interference can be prevented by timing and by restrictions on stations, 1364-1371—The percentage of error shows present freedom from disturbance; disturbance must arise from common use of stations, being greater the greater the number of interests involved, 1372-1377—Analogy worked out with the case of Government and company cables to Amsterdam, direct and via New York, 1378-1380, 1649-1655.

The Convention proposed by Germany to arrest a British monopoly of wireless telegraphy; failure of attempts by foreign Governments to carry on a public service; non-intercommunication approved by Italy, Canada, Newfoundland, and originally by the Admiralty and Lloyd's, 1381-1383—Legal opinion that intercommunication will prejudice patent rights, 1384-1387—The Convention will retard technical development, and is unjust in depriving a company of an industry created without official help; it will be dangerous from the standpoint of Imperial Defence, 1388-1390.

Witness characterises the distribution of votes as inequitable, giving no weight to important States and Colonies; the Colonies were not consulted in the matter and must accept the Convention before obtaining voice or vote, 1391-1404—The Company should have been represented at the Conference, 1405, 1406—Complaint that the British delegates did not insist on retention, by every State, of right of exemption and on extra rate for messages intercommunicated; nor yet on restriction of ship-to-ship telegraphy, 1406-1408.

The British delegates might have prevented any Convention; many foreign delegates were opposed to it and privately expressed their view that intercommunication is impracticable, 1410-1416—Wireless telegraphy cannot become important for any but large ships, 1417-1420—Ratification of the Convention will probably result in erection of stations on French coast (the regulation as to calling the nearest station not being obligatory) and so in loss of traffic, 1421-1426.

Further as to aforementioned regulation, witness contending that it is affirmed only as a general principle and will not be considered imperative, 1427-1436—Opinions of counsel on the legal position under the contract; also affirming that if intercommunication will prejudice patent rights, there is no obligation to intercommunicate, 1437-1444—Witness considers provision of non-exempted stations impracticable and an interference with patent rights; reference to decisions in such cases in the United States, 1445-1450.

Opinions and decisions favourable to the contention that the Marconi patent is a good patent; this includes syntonisation and would render non-exempted stations liable to legal action, 1450-1455—Further evidence as to the alleged omission to consult Canada and New Zealand, the information in neither case being official, 1456-1467—With respect to patent rights, witness speaks as to the agreement to intercommunicate with Scheveningen, and insists that the English Government could not exercise their right of using patents, even by passing an Act maintaining the position of the patent, 1468-1483.

Witness declines to answer promiscuous questions bearing on the legal situation, 1484-1487—Details of the circumstances under which the Post Office agreement was entered into, of which the chief advantage lay in the collection of rates and facility of transmission, 1488-1502—Intercommunication must lead to interference due to conflicting interests; the Marconi regulations are now sufficient and can be modified for future developments, 1503-1505.

Difficulty as to who shall work Lloyd's stations, Lloyd's meditating a transfer to the Admiralty; judgment on the subject, 1506-1508—Further as to the views of foreign delegates and of their Governments; legislation needed before ratification is possible and this is not certain, 1509-1519—Probable pressure on shipping companies by foreign Governments; this may not be successful while exemption is possible; objection of the Allan and Cunard Lines, 1520-1524.

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As to effect of intercommunication on stations in United States, 1525-1528—The prohibition of interference refers to working rather than erection of stations, 1529-1531—Witness quotes the chief Delegate as to the difficulties of intercommunication, but allows that the remarks formed an argument for the power of exemption, which was assumed by some nations, 1532-1540.

Witness asserts that Great Britain failed to secure her position as regards exemption and as regards ship-to-ship telegraphy, owing to differences of opinion between the countries; lists of countries thus affected, 1541-1552—Complete change in attitude of Admiralty towards intercommunication, the First Lord in 1901 suggesting an exclusive licence, the Post Office concurring, and the Admiralty making an exclusive contract on the eve of the first Conference, 1553-1565.

The exclusive agreement with Lloyd's made after communication with the Admiralty, 1565, 1566—A business arrangement with a Continental group declined owing to strongly expressed views of Captain Bethell antagonistic to intercommunication; the Admiralty contract also implies non-intercommunication, 1567-1573.

Contention that the terms of the agreement releasing the Admiralty from their agreement under certain conditions here specified do not imply that the Admiralty favoured intercommunication; on the contrary there was consistent opposition until the eve of the Conference, 1574-1587—The views of Captain Bethell as laid before the Conference were antagonistic to intercommunication; the views of the delegates underwent a sudden change, 1588-1598.

The Marconi Companies claim to carry on a public service under centralised control; this an argument for exemption, 1599-1605—The Poulsen system and the effect on it of intercommunication, 1606-1610—Control over operators best maintained by the Marconi Companies with their bonus system; diplomatic notes to Governments are unsatisfactory and telegraphic bureaux would not be constituted, 1611-1613.

The Company would not join in a "wireless war" in case of ratification, 1614-1616—Royalties from the Admiralty, and alleged copying of apparatus, 1617-1620—Further as to possibility of two stations serving same area, 1621-1625.

Ratification would arrest development of the Company and benefit foreign companies; this the object of Germany in proposing the Convention, as shown in German newspapers, 1626-1632—Change of view of principal French Delegate who at first favoured the Convention, 1633-1637—Confusion does not depend on the systems employed, but on want of organised control of operators; one company essential for this, 1638-1648.

An analogy between wireless and ordinary telegraphy and a railway system, 1654-1656—Details as to date of expiry of various agreements with shipping companies of foreign countries, 1657-1684—Witness contends that ships of adhering countries need not intercommunicate but would request exemption, and that Governments would not enforce acceptance; ships retaining Marconi apparatus would use Marconi stations, but the system would be disturbed; this argument applied to French and German ships, 1685-1699.

Conclusion that competing companies cannot use different systems without mutual disturbance; no regulations will prevent this; analogy of the Telephone Exchange 1700-1706—This view supported by the Cunard and Allan Lines and by a French shipping company, 1707-1711—The importance of Great Britain and Italy would obviate disadvantage from non-ratification, 1712, 1713.

Reasons for permitting intercommunication with Scheveningen, 1714, 1715—Facilities for collecting and transmitting messages granted later in England than elsewhere, 1716, 1717—The expansion of traffic has freely developed under the monopoly, or, more correctly predominant command of business; the Convention destructive of this, 1718-1723.

Large outlay of Company on its public telegraph service; German companies would reap the benefit without expense, intercommunication would involve confusion and end in the service being conferred on a German company, 1724-1731—Ratification would not result in any effective deliberate interference, 1732-1736—Experience of witness with Marconi Company, 1737-1739.

Extent to which systems of wireless telegraphy differ, 1742—Transmission as easy by day as by night, 1743, 1744—Contention that Company controls a preponderating number of stations, 1745—The case for the Company was not urged at the Conference, 1746-1748.

Technical superiority of Marconi system over others, in direction, tuning and reliability of service; these advances not concealed from the Admiralty, 1749-1754—Dissent from view that the Marconi preponderance arises from restricted issue of licences; no extra licences issued or required since 1904, nor any special development of

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of other systems, especially on the French coast, 1757-1774—Before the Act of 1904, steamship lines adopted the Marconi system, and this preference still subsists, 1775-1781.

[*Further Examined*].—Witness is debarred from further reference to conversations with delegates or to the effect of the Convention upon the Company, 3873-3876, 3885-3892—Answer to Sir William Preece's description of Clause 4 of the Terms of Settlement between Lloyd's and the Company, that "it looks like blackmailing"; reasons for inserting such a clause, the Company, though defendants, being in a position to secure its inclusion, 3877.

Examination of Memorandum by Sir Robert Hunter, solicitor to the Post Office (*App. No. 4*), in respect of the possible prejudice to patent rights in case of intercommunication; a contrary opinion given by Mr. Warmington, K.C., and Mr. J. M. Gover; view of witness that the Government cannot pledge itself to the provision of non-exempted stations, in view of the Marconi general patents and particularly that for tuning, 3878, 3879—The decision against the De Forest Company in New York State asserted to be binding throughout the United States, 3879, 3880.

The De Forest decision is presumptive evidence that Marconi Company holds a patent governing all, wireless telegraphy, the unsuccessful defence being that of "anticipation," 3883—Inaction of Marconi Company in respect of litigation against other companies would not prejudice any future action, this being unreasonable and inequitable, and the inaction being due to the unsubstantial position financially of other companies, 3883—The assumption of Marconi patent by Government would be immoral and would encourage infringement of patent rights, 3883.

Examination of Captain Bethell's evidence as to his views on intercommunication; his view that disorganisation will be only temporary is based on the views of Naval witnesses, who argue from entirely distinct conditions from those of commercial communication; contention of witness that provision for exemption is absolutely inadequate from the point of view of dislocation and from the scientific standpoint, 3893-3896.

Suggestion that the method of settling disputes will involve great delay and be ineffectual; the questions involved will be technical, not such as occur under the Telegraph Convention; an example of the ignorance in such matters of German shipping companies; refusal to communicate with an offending ship would not prevent a long continued disturbance, 3897, 3898—The statement that Germany desires to crush the Marconi Company supported by despatches and articles, 3899, 3900.

Dislocation of traffic will be permanent, not temporary, and will be due mostly to promiscuous working; exemption will not encourage an interest in progress and technical improvement, 3901-3905—The decision against the De Forest Company establishes a controlling patent for the Marconi Company; alleged misrepresentation by the De Forest Company, 3906-3909, 3934—Witness is not aware that the Marconi Company has been refused an injunction on the ground that the De Forest no longer use their patent rights 3910-3933.

The American De Forest Company now the United Wireless Telegraph Company; details of its capital and stations in England, 3935-3939—Further concerning legal opinions as to prejudice of patent rights; no prejudice arising from inaction in respect of the Telefunken and Lodge-Muirhead Companies; reasons for such inaction, 3940-3963—Intercommunication with Scheveningen due to non-existence of patent laws in Holland; contention that communication between a Dutch Marconi ship station and an American station would not prejudice patent rights for the same reason, 3964-3984.

Opinion of Mr. Warmington is not invalidated or modified by consideration of compulsory service, 3985-3989—Damped apparatus and persistent wave apparatus cannot communicate unless by sacrifice of essential features, 3990-3992—Compulsory intercommunication will hinder scientific progress; other systems should develop in other areas, 3993-3998.

Competition and common use are incompatible and must lead to confusion as in the case of Lloyd's station at Malin Head; such confusion eliminated in the Marconi system by the "bonus," 3999-4002—With reference to the agreement with the Argentine Government, the Company will cease work in 1908 unless they accept intercommunication, 4003-4014.

Witness declines to make any definite statement as to the anticipated effect of the proviso "without prejudice to patent rights," as inserted in the Post Office contract, 4015-4021—Further evidence as to the amount of traffic carried on by the Company, 4022-4027—Absolute dissent from views of Admiralty delegates, 4028-4030.

Heaton

Heaton, John Henniker (a Member of the House). (Digest of his Evidence).—Witness, who does not represent a particular Colony, describes his appointment by New Zealand as delegate to Berlin, and his exclusion owing to non-representation of Colonies at the instance of Germany, 2710–2721—Witness, who is generally interested in cheap communication, considers the Marconi system perfect, as also the Admiralty adaptation of it; and suggests that the Conference was due to complaints made by the German Emperor and the King of England, 2722–2735, 2766.

The Postmaster-General, though rightly in absolute control of wireless telegraphy, is pressing unduly for ratification; strained relations between Marconi and Post Office due to the former's rejection of a low offer for his patents, 2736–2742—Unjust treatment of Marconi due to "official stupidity," 2743–2753—The great objections to ratification are the confusion necessarily arising from the use of 73 systems and the relinquishment of geographical advantage, 2754–2759.

Inconsistent action of the Post Office in urging haste to join the Convention and simultaneously delaying Colonial action by a letter of warning against the Marconi system; effect of this on the Australian Commonwealth, 2760–2764, 2769, 2770—Witness urges delay in view of our possession of the best system, other countries having everything to gain, 2765–2768, 2771—Opinion of witness is not on technical but on practical grounds, 2772–2776.

Government should control the Marconi system, 2777, 2778—Doubt as to possibility of intercommunication, 2779–2784—The best system at any moment should be adopted; non-adherence or refusal to intercommunicate would not prevent this; in any case no other system is at present of importance or does any commercial business, 2785–2803.

As to the Lodge-Muirhead station in the West Indies and impossibility of Marconi communication with it, 2804–2811—Competition, when it comes, should be free and will lead to economy, but ratification is absolutely unnecessary at present, 2812–2817—Witness strongly objects to intercommunication being compulsory; a company is entitled to refuse intercommunication, 2818–2833.

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Imperial Defence.—As to the varying interests of various Departments and of the Committee of Imperial Defence, *Babington Smith* 382–387—The Convention is dangerous from the standpoint of Imperial defence, *Hull* 1390.

Assurance that the Convention is considered satisfactory by the members of the Committee of Imperial Defence, *Rep.* iii.

Imperial Interests.—No prejudicial effect on Imperial interests, *Daniell* 685, 686.

Importance of the freedom of action reserved to India and the Colonies with regard to the Convention, *Rep.* xvii.—Importance, from an Imperial point of view, of maintaining a preponderating influence in Radiotelegraphy, *Rep.* xix.

See also *Colonial Interests.* *Votes.*

Inglefield, Captain E. F., R.N. (Digest of his Evidence).—Witness, who is secretary of Lloyd's, explains how their "Maritime Intelligence" is collected from signal stations and from agents; visual signalling employed hitherto, but experiments made with wireless, 2028–2033—Agreement in 1901 with a Marconi Company, varied in 1905 by Terms of Settlement; list of stations equipped under the Agreement; resulting litigation, 2034–2037—Marconi's the only organised system in 1901; hence Lloyd's agreement to forego intercommunication, and adherence to the prohibition, 2038–2040.

Prohibition of intercommunication is increasingly detrimental to public interest; collection of intelligence being hindered and human life endangered, 2041–2042—Closing of Lloyd's station at Rathlin Island as a consequence; also Lloyd's prevented from establishing colonial stations, 2043, 2044—Non-ratification will probably stop invaluable privileges enjoyed by Lloyd's from foreign governments, 2045, 2072.

Witness accuses Marconi Company of attempting by word and deed to discredit Lloyd's operators at Malin Head, with a view to ousting Lloyd's from the station; a defence of Lloyd's operators as highly trained and zealous, 2046–2051—Importance to Lloyd's of intercommunication and difficulties arising from the agreement; this last would not be made under present circumstances, 2052–2061—As to relief from agreement in case of ratification; witness was not a party to the insertion of this provision, 2062–2071, 2088–2091.

Opinion that the Convention would be entirely to the interest of Lloyd's and of Great Britain, 2073–2087—Reasons for requiring stations at Inishtrahull and Malin Head, 2092–2094—As to the making of a similar agreement at the present time, 2095–2100.

Failure

Inglefield, Captain, E. F., R.N. (Digest of his Evidence.)—continued.

Failure of analogy between Lloyd's system and a wireless telegraphy system, owing to absence of interference; a central control being impossible, international agreement is necessary for wireless telegraphy, 2101-2108—The present position of the Marconi Company due to complete organisation, 2109, 2110—The Malin Head incident aforementioned is not a proof of necessary friction under two controls, and as such an argument for monopoly, 2111-2115.

Intercommunication.—Unique interests and geographical position of the British Empire; refusal to intercommunicate would tend to sacrifice these by inducing erection of foreign stations, *Babington Smith* 353-360—Intercommunication not compulsory, but advisable at stations like Gibraltar, Malta, Hong Kong, *ib.* 361-364—As to proposed additional charge for intercommunicated messages; this not considered vital, *ib.* 430-433.

As to division of telegraphic rates in case of intercommunication, *ib.* 464-467—No injury caused to instruments by intercommunication, *ib.* 516, 517—The Marconi system not generally used in the Colonies; intercommunication generally desirable and to the probable advantage of the Company, while it would encourage erection of British stations, *Daniell* 687-692.

Admiralty in favour of intercommunication; witness shows that observations made by the chief Naval Delegate were not antagonistic to this principle but in favour of intercommunication provided the *sine qua non* of exemption was approved *ib.* 731-747—Constant attitude of Admiralty towards intercommunication *ib.* 947—Intercommunication generally possible *Payne* 954.

Marconi Company must lose ground unless they accept intercommunication *Loring*, 1142-1148—Non-intercommunication approved by Italy, Canada, Newfoundland, and originally by the Admiralty and Lloyd's *Hall* 1381-1383—View privately expressed by foreign delegates that intercommunication is impracticable, *ib.* 1410-1416.

Witness quotes the chief Delegate as to the difficulties of intercommunication but allows that the remarks formed an argument for the power of exemption, which was assumed by some nations, *ib.* 1532-1540—The views of Captain Bethell as laid before the Conference were antagonistic to intercommunication; the views of the delegates underwent a complete change, *ib.* 1588-1598.

Prohibition of intercommunication increasingly detrimental to public interest, collection of intelligence being hindered and human life endangered, *Inglefield* 2041, 2042—Closing of Lloyd's station at Rathlin Island as a consequence; also Lloyd's prevented from establishing colonial stations *ib.* 2043, 2044—Intercommunication between various systems would not disturb the present service; imperfect analogy with Telegraphic Convention, *Lodge* 2243-2250.

Witness controverts Mr. Hall's evidence as regards (1) the justification of non-intercommunication, (2) the impracticability of intercommunication, this being entirely contrary to the Company's pretensions *Maskelyne* 2573, 2573*—Doubt as to possibility of intercommunication, *Heaton* 2779-2784—Witness strongly objects to intercommunication being compulsory; a company is entitled to refuse intercommunication, *ib.* 2818-2833.

Intercommunication involves no confusion at American stations, the De Forest being used, but not under contract, for the sake of intercommunication, *Philipps* 2848-2853, 2857-2864—The use of a system which could not communicate would be considered hostile to the Convention, *Marconi* 2955, 2956—As to intercommunication with Holland, Belgium and the Argentine Republic, *ib.* 3062-3069, 3116-3120—Non-intercommunication may be a commercial disadvantage, but it is inevitable for proper organisation, *ib.* 3128-3132.

Witness, who is acquainted with all the best systems, considers intercommunication essential and the Marconi attitude injurious, *Preece* 3322-3324—Intercommunication would not involve the right to use another company's apparatus, *ib.* 3470-3476.—As to the Marconi objections to intercommunication, *ib.* 3477-3481.

Although the Cunard Company express an opposite opinion, intercommunication in time of war is essential for the Mercantile Marine as for the Navy, *Payne* 3651-3655—A refutation of the suggestion that witness considers intercommunication impossible of regulation and enforcement, *Bethell* 3846-3848.

Witness quotes at length a letter received from Monsieur Bordelongue, principal French delegate in 1906, with reference to views said by Mr. Cuthbert Hall to have been expressed by the writer antagonistic to the proposed intercommunication under the Convention; the writer details his reasons for desiring the Convention and shows that the support of the French delegates enabled Great Britain to obtain power of exemption and to reject the proposed boycott of non-adhering companies *Babington Smith* 3849, 3850.

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Witness quotes opinions favourable to intercommunication from the Italian delegates; the expressed views of Japanese and Russian delegates were similarly favourable, *ib.* 3851, 3852—Evidence on the arrangements as to intercommunication made by Marconi Company with the Dutch, Argentine, and Belgian Governments, *ib.* 3853–3855.

Examination of Captain Bethell's evidence as to his views on intercommunication; his view that disorganisation will be only temporary is based on the views of Naval witnesses who argue from entirely distinct conditions from those of commercial communication, *Hall* 3893–3896—Damped apparatus and persistent wave apparatus cannot communicate unless by sacrifice of essential features, *ib.* 3990–3992—Reasons of navigation and of commerce render intercommunication imperative, *Bright* 4033.

Consideration of the possibility and desirability of intercommunication between various systems, *Rep.* xv., xvi., xx.—Conclusion that universal free intercommunication with certain exceptions and exemptions is desirable, and will be entirely beneficial, *Rep.* xxvi.—Intercommunication impossible without sacrifice of efficiency, *App* No. 2, pp. 5, 6.

See also *Amalgamated Radiotelegraph Company. Convention, Ratification of Patent Rights. United States.*

Interference.—As to possible interference from use of secret apparatus; *Babington Smith* 261–263—Evidence as to the avoidance of confusion and interference, *ib.* 481–487—As to safeguards against wilful interference or wireless piracy, *Daniell* 677–684.

A station at Gibraltar might suffer interference from a neighbouring Spanish station, *Payne* 1056–1061—General increase in number of stations due to competition, and in range due to want of control, and to scientific progress; corresponding increase of interference, *Loring* 1067–1071—Extra stations might be erected without interference, *ib.* 1106.

Causes of interference and steps taken to counteract them, international agreement being shown as the only solution, *ib.* 1126—Though shore stations should be far apart, two adjacent stations (as at Gibraltar) would not interfere if wave lengths were entirely different, *ib.* 1155–1161.

Percentage of error in Marconi system shows present freedom from disturbance; disturbance must arise from common use of stations, being greater the greater the number of interests involved, *Hall* 1372–1377—Intercommunication must lead to interference arising from conflicting interests, *ib.* 1503–1505—The prohibition of interference refers to working, rather than erection, of stations, *ib.* 1529–1531.

Further evidence as to possibility of two stations serving the same area, *ib.* 1621–1625—Confusion does not depend on the system employed but on want of organised control of operators; one company essential for this, *ib.* 1638–1648—Conclusion that competing companies cannot use different systems without mutual disturbance; no regulations will prevent this; analogy of the Telephone Exchange *ib.* 1700–1706—This view supported by the Cunard and Allan Lines and by a French shipping company, *ib.* 1707–1711.

In the narrow seas chaos would reign without international regulation; cases illustrating reception of messages by stations far distant from their destination, *Gavey* 1800–1803—Outside certain limits, interference can be reduced by allotments of wave length and by special receiving apparatus; the Convention aids this by specifying wave lengths, *ib.* 1804–1806—Distance between stations less important than strictness of regulation, *ib.* 1807–1810.

Non-ratification would involve interference from ships fitted with more powerful apparatus to communicate with continental stations, and this without redress, *ib.* 1814–1818, 1823–1827, 1846–1848—Non-interference at present due to expectation of Convention and not to Marconi organisation, *ib.* 1819, 1820—Interference anticipated when England establishes its own system, *ib.* 1849.

How a shore station could prevent interference arising from ship-to-ship communication, *ib.* 1924–1931—Witness deals with Mr. Cuthbert Hall's argument that interference would arise from use of different systems, that the regulations are inadequate and that redress would be difficult to obtain, *ib.* 2012–2021—Efficiency of Lodge-Muirhead system in avoidance of interference and for a ship-to-shore service *Muirhead*, 2394–2398.

Witness controverts Mr. Hall's evidence as regards (1) means of preventing interference; (2) interference experienced by the Navy, *Muskelyne*, 2574, 2575—Under the Convention wilful interference is improbable: without it, interference is certain, whether wilful or unavoidable, *ib.* 2617–2621—The regulations against interference would be effective, *ib.* 2631, 2632.

Interference—continued.

No interference takes place under the Marconi system; legislation should be independent, not international, *Marconi*, 3070-3077—Witness cannot concede that material interference exists; criticism of Lieutenant Loring's evidence as to confusion arising at Dover and as to bad language of operators; no confusion even at the Lizard and Briar Head, where the traffic is heavier, *ib.* 3279-3283—Criticism of Sir Oliver Lodge's and Mr. Maskelyne's evidence as to interference with high powers; contrary experiences at Poldhu and the Lizard, *ib.* 3284-3287.

Competition and common use are incompatible and must lead to confusion as in the case of Lloyd's station at Malin Head; such confusion eliminated in the Marconi system by the "bonus," *Hall* 3999-4002.

Special provision, in the Regulations to prevent interference and confusion, *Rep.* xii, xiii., xxv.—A statement of the technical causes of interference and of the remedies for it. *App.* No. 2, pp. 5, 6.

See also *Convention, Probable Results of. Marconi Companies. Syntony.*

Italy—The case of Italy not analogous with that of Great Britain, the agreement (lasting to 1917) being with Mr. Marconi, and of a stricter type, *Babington Smith*, 399-401, 476, 477, 510—Italy will benefit from compulsory postponement in being able to work freely, and because the disadvantages of the Convention will appear before the time of ratification 13 years hence; witness concedes that the British position may be different, *Marconi* 3218-3227.

See also *Convention, Ratification of. Inter-communication.*

J.

Johnson G.W., C.M.G. (Digest of his Evidence.)—Witness, who is a Principal Clerk in the Colonial Office, gives evidence as to wireless telegraphy in the Colonies, 1194, 1195.

Every Government has complete control over wireless telegraphy and has opposed any monopoly save in Newfoundland; and here intercommunication may be enforced 1196-1199—As to stations in Colonies, especially in Canada, Trinidad and Tobago, private stations of Telegraph Companies, and ships licensed in colonies 1200-1207—Applications from Lloyd's in abeyance owing to their Marconi agreement 1208, 1225-1227

Form of licence used, and alteration at the instance of the Marconi Company 1209-1210—General agreement of Colonies to the Convention as advantageous; the Crown Colonies would adhere through the Colonial Secretary 1211-1216—Allocation of votes by the Conference and possible exclusion of Newfoundland, this depending on their adherence or otherwise; Newfoundland will possibly not adhere 1216-1224, 1228-1244.

L.

Licences.—Details of licences and of the six systems for which licences have been issued *Babington Smith* 51-61, 64-66—Power reserved to Government to take possession of or control apparatus upon emergency, *ib.* 62, 63, 264.

Very few but Marconi stations licensed pending a decided policy as to radio-telegraphy, *ib.* 301—Refusal of Marconi Company to intercommunicate might lead to forfeiture of licence, *ib.* 438-440—Possible licensing of foreign stations on British soil, *Daniell* 695, 696.

Form of licence used, and alteration at the instance of the Marconi Company, *Johnson* 1209, 1210—Commercial licences refused because of Marconi agreement and to avoid disturbance, *Muirhead* 2484, 2485—Licences for coast stations refused, although the Poulsen system cannot interfere with others, and consequent loss of business, *Maskelyne*, 2567-2569—Reasons for refusal of licences; these vanish with the Convention, whose regulations render the bonus system unnecessary, *ib.* 2641-2646.

Witness would not object, in case of non-adherence, to the grant of licences to other companies under like conditions; but in case of ratification and exemption of Marconi stations, such grants of licences would influence traffic away from the Marconi Company, *Marconi*, 3297-3308—The granting of licences is a matter of the policy of the Post Office, *Preece*, 3592-3597—Contradictory evidence on behalf of the Marconi Company as to licensing of stations belonging to other companies *Bright*, 4087-4090.

Lloyd's

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Lloyd's—Agreement of Lloyd's to use exclusively Marconi apparatus; litigation consequent thereupon, *Babington Smith* 30–35—Lloyd's agreement has tended to restrict extension of wireless telegraphy, *ib.* 302, 303—Utility of Lloyd's greatly hampered by want of intercommunication; this last will also restrict Marconi Company, *ib.* 492–495.

Applications from Lloyd's for licences kept in obedience owing to their Marconi agreement, *Johnson* 1208, 1225–1227—Difficulty as to who shall work Lloyd's stations, Lloyd's meditating a transfer to the Admiralty; judgment on the subject, *Hall* 1506–1508—The exclusive agreement with Lloyd's made after communication with the Admiralty, *ib.* 1565, 1566.

Witness, who is Secretary of Lloyd's, explains how their "Maritime Intelligence" is collected from signal stations and from agents; visual signalling employed hitherto, but experiments made with wireless, *Inglefield* 2028–2033—Non-ratification will probably stop invaluable privileges enjoyed by Lloyd's from foreign Governments, *ib.* 2045, 2072—Witness accuses Marconi Company of attempting by word and deed to discredit Lloyd's operators at Malin Head with a view to ousting Lloyd's from the station; a defence of Lloyd's operators as highly trained and zealous, *ib.* 2046–2051.

Importance to Lloyd's of intercommunication and difficulties arising from the agreement; this last would not be made under present circumstances *ib.* 2052–2061—Opinion that the Convention would be entirely to the interest of Lloyd's and of Great Britain, *ib.* 2073–2087—Reasons for requiring stations at Inishtrahull and Malin Head, *ib.* 2092–2094.

Failure of analogy between Lloyd's system and a wireless telegraphy system, owing to absence of interference; a central control being impossible, international agreement is necessary for wireless telegraphy, *ib.* 2101–2108—The Malin Head incident aforementioned is not a proof of necessary friction under two controls and as such an argument for monopoly, *ib.* 2111–2115.

The licensing of stations other than Marconi would not obviate all difficulties complete "free trade" is essential in wireless telegraphy, especially for Lloyd's, *Philipp's* 2843–2847, 2870–2872—Lloyd's contract should not be invalidated without compensation, *ib.* 2856.

Necessary interest of Lloyd's in wireless telegraphy; their agreement with the Marconi Company and the restrictions thereby created, *Rep.* vii., viii.—Importance of evidence given by Lloyd's, *Rep.* xx.—Probable ill-effects of non-ratifications from Lloyd's point of view, *Rep.* xxi.

See also *Intercommunication.* *Marconi Company, Agreements with.*

Lodge, Sir Oliver. (Digest of his Evidence.)—Early experiments of witness in electric radiation; detection of Hertzian waves by a coherer; demonstrations with Hertz oscillators and with Branly filings tube, and anticipations of Marconi's apparatus, 2116, 2117—Witness took out first tuning patent in 1897; difference between untuned and tuned stations; analogy with a plucked string; disturbance from ten miles distance can be tuned out, 2118–2126, 2169—An experiment on this point made at Hythe, with attempted interference from Dover, explained with sketches, 2127–2136.

Prevention of interruption depends upon control of wave-length; with proper tuning no undue interference need occur; the tune can easily be changed or done away with so as to receive any wave-length; "diplex" telegraphy possible, 2137–2158—A difference of one per cent of charge might prevent disturbance, 2159—Experimental stations on the Lodge-Muirhead system, 2160–2162.

A wireless station should be bound to deal with all messages under regulations, 2163–2168—Witness would not approve of a monopoly for any system, 2170—Details of signalling from Andaman Islands to Burmah, 300 miles, with 1½ horse-power [later corrected to 580 miles with ½ horse-power], 2171–2178.

Enormous power used at Poldhu for long distances, 2179–2182—Varying importance attached to earth-connection and to the inductive method of connecting the circuits; earth-connection deleterious to real tuning, 2183–2189—Effect on wireless telegraphy of the sea, hills, walls, &c.; sea telegraphy far the easiest, 2190–2199.

Claim of the Muirhead Company to have best coherer and best system of tuning, 2200–2203—Opinion that the Convention is necessary and worthy of ratification, 2204–2206—Witness showed possibility of wireless telegraphy in 1894, and Dr. Muirhead conceived its practical use before Marconi's patent; use of two plates, "the Hertz vibrators" (not a single elevated wire), and of the wheel coherer, 2207–2221.

Further, as to the limit of necessary difference of one per cent. of wave-length, 2222–2226—Convention limits of wave-length allow sufficient scope for tuning; possible interference from high-power stations; a shorter wave-length does not imply less

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efficiency, 2227–2236—Non-ratification or postponement would probably involve a later adherence at a disadvantage, through non-participation in the framing of regulations, 2236A–2238, 2258–2261, 2312, 2313.

A multiplicity of small stations would involve but little disturbance, the Regulations proposed being adequate for this purpose, 2239–2242, 2262, 2263—Intercommunication between various systems would not disturb the present service; imperfect analogy with Telegraphic Convention; a central organisation would tend to diminish confusion, 2243–2250—The regulations afford effective control, easily adopted by the Lodge-Muirhead system, 2251–2256.

A multiplication of stations to the public interest, 2264—Messages are transmitted more easily in daytime owing to the ionisation of air by sunlight, 2265–2267—Wireless telegraphy is in its infancy, so any system must be encouraged; hence a Convention essential to Great Britain, who should participate in framing the regulations, 2268–2279.

A “wireless war” would be possible, and, while the necessity of complying with the regulations would tend to hinder its development, still the non-adherence of Great Britain would tend to aggravate it, 2280–2293, 2298, 2335–2337—Further hereon, the disturbing effect of Poldhu being considered, 2294–2297—The best policy is free trade, organised by a Convention and using a large number of small power stations, tuned to avoid mutual interference; the limitation of wave lengths leaves sufficient margin, 2298–2311.

The future of wireless telegraphy depends upon development of selectivity or “tuning”; a system refusing intercommunication would suffer more from interference than a communicating system arranged for tuning; 2316–2334—Doubt as to the efficacy of tuning in the Marconi system, 2338, 2339—Interruptions, unless very violent and untuned, can almost always be tuned out, 2340–2343.

Lodge-Muirhead Company.—Experimental stations on the Lodge-Muirhead system, *Lodge* 2160–2162—Details of singalling from Andaman Islands to Burma 300 miles with $1\frac{1}{4}$ horse power, *ib.* 2171–2178 [later corrected to “580 miles with $\frac{1}{2}$ horse power,” *Muirhead* 2345]—Claim of the Company to have the best coherer and best system of tuning, *Lodge* 2200–2203—Witness showed possibility of wireless telegraphy in 1894, and Dr. Muirhead conceived its practical use before Marconi’s patent; use of two plates, the “Hertz vibrators” (not a single elevated wire) and of the wheel coherer, *ib.* 2207–2221.

Formation, capital, &c., of the Company, *Muirhead* 2346–2348—First demonstration of radiotelegraphy by Lodge in 1894, and first published patent in 1897, two months before Marconi’s; demonstrations to the Post Office and other Departments, especially at Hythe, in avoiding intentional interference, *ib.* 2349, 2350—Continual refusal of the Post Office, perhaps instigated by the Admiralty, to grant licences for commercial stations except to the Marconi Company; alleged infringement of patent by the Admiralty and their refusal to test this in court of law, *ib.* 2351–2358.

Use of the system by other Governments, especially in Andaman Islands, by the War Office and by the Midland Railway at Heysham *ib.* 2359–2364—Ease in operation of the system; short training of operators in works at Elmers End, *ib.* 2389–2393—The Marconi system “endowed” by the British Government; the Lodge-Muirhead system would be equally efficient and should be free to compete, *ib.* 2403–2412.

Many coast stations should be erected; the power of the system, though overwhelmingly great on occasion, can be modified as necessary to such a multiplicity of stations, *ib.* 2413–2420—Further as to priority of Lodge’s patents and alleged unfairness of Wireless Telegraph Act of 1904; the Postmaster-General’s monopoly of electric communication used to the advantage of Marconi, *ib.* 2436–2454.

Possible close propinquity of stations under the Lodge system, *Maskelyne* 2682–2688—As to the Lodge-Muirhead station in the West Indies and impossibility of Marconi communication with it, *Heaton* 2804–2811.

See also *Patent Rights: War Office*.

Long-distance Stations.—Long-distance stations can with difficulty communicate with, and can easily avoid, short-distance stations; the former are mostly unaffected by the Convention, *Payne* 1033–1046—As to high power stations as at Poldhu, Nauen, Eiffel Tower, and their ranges and wave lengths; no mutual interference if on different wave-lengths; these stations not provided for in the Convention, *Loring* 1109–1114.

Trans-Atlantic

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Long-distance Stations—continued.

Trans-Atlantic and other long-distance signalling is scientifically possible and advantageous in difficulty or in danger, but is commercially useless; the initial cost would be less than that of cable laying, but expert telegraphists and machinists would be very expensive, *Preece* 3375-3396.

See also *Nauen*.

Loring, Lieutenant F. G., R.N. (Digest of his Evidence.)—Witness, who is in charge of the Admiralty Shore stations, and was a delegate to Berlin, gives evidence as to wireless traffic around Great Britain, and as to the general practice of wireless telegraphy, 1062-1066.

General increase in number of stations due to competition and in range due to want of control and to scientific progress; corresponding increase of interference, 1067-1071—International agreement is desirable and timely to prevent complications; in any case intercommunication would have become imperative, 1072-1074—Chief difficulties arise from the ship stations; if properly organised, control and practice should present few difficulties, 1075-1078.

Beneficial effects of Convention on naval and commercial shore stations: this last shown by improvement in wireless telegraphy due to friendly working between North Foreland, Flushing boats and Scheveningen, 1079-1093—Text of notification from Berne as to intercommunication between Scheveningen and Marconi ship stations, 1094, 1095, 1192, 1193—Present stations probably ample for traffic, 1097.

Great percentage of signals is quite unnecessary; this restricted by article on superfluous signalling, 1098-1105—Extra stations might be erected without interference, 1106—Ratification would be beneficial to commercial and naval stations, 1107, 1108.

As to large power stations as at Poldhu, Nauen, Eiffel Tower; their ranges and wave lengths; no mutual interference if on different wave lengths; these stations not provided for in the Convention, 1109-1114—Witness gives details tending to prove that the Company will gain by full acceptance of the Convention, but will be materially injured by non-adherence of Great Britain or by themselves assuming a hostile attitude, 1115-1120.

General rules governing organisation of shore stations on one or on two wave-lengths, 1121-1123—Witness quotes text of many International Regulations, showing the aims of the British delegates as being: (1) to control Channel traffic; (2) to secure efficient workers and apparatus; (3) to make wireless an expansion of ordinary telegraphy; (4) to provide by exemption against a possible failure of intercommunication; (5) an international code language, (6) security of existing organisations; (7) freedom of action at home; (8) light international obligations; (9) to secure full benefits of Convention, 1124, 1125.

Causes of interference and steps taken to counteract them, international agreement being shown as the only solution, 1126—As to the special system used by the Navy, 1127-1131—Long wave-lengths not used commercially, 1132.

An international agreement preferable to various friendly arrangements, 1133—Details of work carried on from Dover, much of the signalling being superfluous and necessitating strict regulation, 1134-1141—Marconi Company must lose ground unless they accept intercommunication, 1142-1148.

Possibility of identifying an offending ship station, 1149-1153—The want of an International language, 1154—Though shore stations should be far apart, two adjacent stations (as at Gibraltar) would not interfere if wave-lengths were entirely different, 1155-1161.

Nauen very unlikely to interfere with Poldhu; no regulation yet possible of such stations, 1162-1166—Other systems technically as good as the Marconi system, 1167-1169—Four distinct courses possible at Gibraltar, 1171, 1172.

Impossibility of ships in the Atlantic communicating with Nauen, 1173, 1174—Sufficiency of existing Channel stations; erection of French stations would not affect, under the Convention, superiority due to geographical position, 1175-1191.

M.

Macrihanish. See *Fessenden, Prof.*

Malin Head. See *Intercommunication.* *Interference.* *Lloyd's.*

Marconi,

Marconi, Guglielmo, LL.D. (Digest of his Evidence.)—Witness, who is technical adviser of the Marconi Company, and has advised the Italian Government for ten years, gives evidence on technical, scientific and some commercial aspects of wireless telegraphy, 2880–2883—Early experiments in Italy in 1896; visit to England, introduction to Sir William Preece and experiments in London, Salisbury, and South Wales, with aid of Post Office but without financial assistance; simultaneous experiments of Sir William Preece with the “inductive” method, 2884–2890.

Dates of first Marconi and Lodge patents, 2891, 2892—Professor Slaby present at South Wales experiments and resulting negotiations with German company; subsequent inception of the Telefunken system, an infringement of patents, 2893, 2894.

Technical objections of witness to Convention are that the divulging of technical secrets will be inevitable and the assumption that intercommunication depends on wave length entirely, no account being taken of amplitude, 2895, 2921, 2922—Explanation of term “amplitude” and its difference from wave-length; waves of same length but different amplitudes have diverse effects on receivers; thus systems now developing would be unable to intercommunicate, 2895–2917—This would render the Convention impracticable, the object of the Convention being intercommunication, and will retard the progress of science, 2918–2935.

Further hereon, reference being made to a third species of system, devised by witness, depending on the combination of waves, 2936–2945—The Convention will tend to discourage systems which cannot intercommunicate; without a Convention there would be free competition, and witness would not object to free issue of licences, 2946–2954—The use of a system which could not communicate would be considered hostile to the Convention, 2955, 2956.

Developments of wireless telegraphy will render the application of the Convention almost impossible, 2957–2963—Witness objects to any international restrictions on wave-length or amplitude; this latter depends on the specific character of transmitter and receiver, 2964–2975, 2993—The importance of amplitude not recognised by other inquirers or discussed at the Conference; relation between amplitude and energy and its bearing on syntony; discussion of tuning should have involved amplitude, 2976–2992.

Statement traversed that tuning renders intercommunication simple, 2994–2997—Three statements of Mr. Cuthbert Hall’s on tuning contradicted, 2998–3001—Direction of transmission can be controlled within thirty degrees; this not allowed for in Convention, 3002–3006.

Calling attention to restriction of power to one kilowatt under ordinary circumstances, 3007–3013—Witness understands the Convention to provide for no experimental licences for ships; additional experimental apparatus might be prohibited, 3014–3020—The Convention might be feasible if all systems were equally meritorious, if finality were reached and if patent litigation had cleared the way 3021–3024.

Great Britain will gain by non-adherence in (1) the use of any wave length at option; (2) the encouragement of free competition, which is incompatible with compulsory intercommunication; (3) avoiding the difficulty of locating a source of error and of obtaining redress from the licensing Government, 3025–3035—This last-mentioned point developed, showing the natural tendency of a Government to delay punishment and shield its operators; this might lead to retaliatory measures, 3036–3045.

Criticism of statistics, especially such as refer to Russia and America, in Appendix No. 1., showing the stations on various systems, 3046–3060, 3204–3206—The Convention is unjust to patentees, and will lead to endless litigation; it is technically impracticable and it will impede wireless telegraphy; intercommunication will prejudice patent rights, 3061—As to intercommunication with Holland, Belgium, and the Argentine Republic, 3062–3069, 3116–3120.

No interference takes place under the Marconi system; legislation should be independent, not international, 3070–3077—Attitude of Colonial Government is generally unfavourable to intercommunication, but Home Government has urged the other view, 3078, 3079—Strained relations between Post Office and Marconi Company, 3080–3085.

The effect of the Convention upon foreign ships bearing Marconi apparatus would depend upon arrangements with their Governments; witness opines that such ships will still prefer to communicate with Marconi stations and that foreign Governments will erect such stations under their power of exemption, 3086–3103, 3113–3115—A Convention could hardly be effective which did not include the British Empire; foreign Governments would find it to their interest to exempt stations, 3104–3109—Possibility of carrying duplicated apparatus 3110–3112.

Cargo boats might operate Marconi apparatus under due regulations; an International Convention could not exercise as much control, 3121–2127—Non-intercommunica-
tion

Marconi, Guglielmo, LL.D. (Digest of his Evidence.)—*continued*.

tion may be a commercial disadvantage, but is inevitable for proper organisation, 3128–3132—Witness approves of free competition with due respect to priority of working 3133, 3134.

Communication would be prevented unless modifications or improvements of apparatus are divulged, and thus the Convention would be inconsistent with due regard to secrecy, 3135–3145—Witness reiterates statement that the Colonial Office have hampered the Marconi system in the Colonies, possibly influencing Canada to license the De Forest system, 3146–3157—A Marconi message transmitted 3,000 miles but the service not maintained for lack of sufficient power, 3158–3165.

Witness can foresee no state of harmony between different systems, Convention or no Convention, 3166–3168—Contracts between Marconi Company and shipping companies, 3169, 3170.

The Convention would impede the science and art of wireless telegraphy by impeding adoption of non-communicating systems; details of an occasion in 1904 on which Marconi stations in Italy were unable to communicate with Telefunken stations on German warships at a distance of only 13 miles, 3171–3185—Scientifically, equality of opportunity is desirable; commercially, advantage of priority should be maintained, 3186–3190—Intercommunication with Scheveningen, which witness believes is not a Marconi station, is due to the non-existence of patent law in Holland, 3191–3195

Although Lloyd's, the Allan Line and the Royal Mail Company are presumably now in favour of intercommunication, the Marconi Company holds a large number of shipping contracts antagonistic to this principle, 3196–3203—The Convention will be ineffective in so far as the Poulsen and the new Marconi systems cannot inter-communicate; general legislation is premature and Governments should work individually, risk of interference being negligible, 3207–3217.

Italy will benefit from compulsory postponement in being able to work freely and because the disadvantages of the Convention will appear before the time of ratification 13 years hence; witness concedes that the British position may be different, 3218–3227—Marconi system has not suffered from confusion, nor will the best systems; prospects of a "wireless war" have no terrors, 3228–3235—New improvements are best developed in actual practice; doubt as to possible experimenting under the Convention, in addition to doubts aforementioned, 3236–3241.

Postponement of patent litigation in Germany; successful action in United States rendered futile by liquidation of defending Company, 3242–3246—Litigation is inevitable, but without a Convention will be more easy of adjustment according to the interests concerned, 3247–3250—Communication depends partly upon amplitude, which is controllable; neither wave-length nor amplitude should be controlled as yet, 3251–3256.

Ratification might be advantageous to Germany, but would be injurious to England and to the Marconi Company, 3257–3259—The statement that all inventors save witness favour intercommunication is contrary to views expressed in a letter written to the "Times" by Professor Fessenden, who held a Post Office licence for Macrihanish, 3260–3267—The letter aforesaid denounces the Convention as impracticable, injurious to scientific progress, and unnecessary; full text of the letter amplifying these denunciations, 3263.

Exemption of all Marconi stations would satisfy witness and many shipping companies; opinion that several countries will refuse to ratify, 3268–3273—The foreign element in the directorate of Marconi Companies, 3274—Two possible lines of action by the Company in the event of ratification, 3275–3278.

Witness cannot concede that material interference exists; criticism of Lieutenant Loring's evidence as to confusion arising at Dover and as to bad language of operators; no confusion even at The Lizard and Briar Head where the traffic is heavier, 3279–3283—Criticism of Sir Oliver Lodge's and Mr. Maskelyne's evidence as to interference with high powers; contrary experiences at Poldhu and the Lizard, 3284–3287—Predominant position of Marconi Company due to priority, to technical superiority, and to organisation; in this last there are no competitors, 3288–3292—The position aforesaid not due to special advantages conferred by Government, which indeed hesitated to connect up the shore stations; an original equality of opportunity, 3293–3296.

Witness would not object, in case of non-adherence, to the grant of licences to other companies under like conditions; but in case of ratification and exemption of Marconi stations, such grants of licences would influence traffic away from the Marconi Company, 3297–3308—As to the enforcement of penalties and the institution of the bonus system, 3308*–3311—Witness asks permission to demonstrate practically any doubtful point at a Marconi station, 3311, 3312.

Marconi

Marconi Companies.—Details of formation and capitalisation of the Marconi Company and of its early dealings with Government Departments; also of the Marconi International Marine Communication Company, its constitution and early policy, *Hall* 1245–1257—Determination to carry on a public telegraph service and initial steps in this direction, *ib.* 1258–1260—Difficulties overcome in respect of transmission of messages between telegraph offices and Marconi stations, *ib.* 1302, 1303.

Proposals for amalgamation with other companies rejected, they showing little business except the sale of instruments alleged to be copied; subsequent diplomatic action of German Government and proposal of Convention, *ib.* 1304–1310—Establishment of the only public wireless telegraph service by the Marconi Company; figures showing tonnage of ships, number of words transmitted, percentage of error, distribution of stations; comparison with business of other companies, many of their stations doing no public traffic; details of American stations, *ib.* 1311–1331, 4022–4027.

Policy of Marconi Company justified by results; stations on all first-class liners despite difficulties of licensing and opposition of foreign Governments, *ib.* 1332—Further as to the efficiency and complete control of the Marconi system; other companies might operate in particular spheres and interference can be prevented by tuning and by restrictions on stations, *ib.* 1364–1371—The Marconi regulations are now sufficient and can be modified for future developments, *ib.* 1503–1505.

A business arrangement with a Continental group declined owing to strongly expressed views of Captain Bethell antagonistic to intercommunication; the Admiralty contract also implies non-intercommunication, *ib.* 1567–1573—Facilities for collecting and transmitting messages granted later in England than elsewhere, *ib.* 1716, 1717—Large outlay of Company on its public telegraph service, *ib.* 1724–1727.

Experience of witness with Marconi Company, *ib.* 1737–1739—Contention that Company controls a preponderating number of stations, *ib.* 1745—Technical superiority of Marconi system over others, in direction, tuning, and reliability of service; these advances not concealed from the Admiralty, *ib.* 1749–1754.

Preliminary negotiations between Mr. Marconi and the Post Office, *Garvey* 1828–1831—Witness contravenes the statement that companies other than the Marconi do no important commercial work, *ib.* 2022–2027—The present position of the Marconi Company due to complete organisation, *Inglefield* 2109–2110.

The Marconi Company not a commercial organisation until 1901 and then endowed by Government to the detriment of other companies, *Muirhead* 2403–2412, 2455–2464—Dealings of Marconi with the Post Office and experiments at public expense; suggestion that the invention was largely due to Post Office officials; facts as to the magnetic detector, *ib.* 2465–2477—Witness denies that the Company maintains the only public service, *Maskelyne* 2572.

Ships must cease to carry Marconi apparatus or will be most restricted in communicating, *ib.* 2622–2628—Legal actions with the Marconi Company, *ib.* 2629, 2630—The large Marconi organisation due to priority of opportunity, *ib.* 2673–2676.

Doubt as to the simultaneous efficiency of the Marconi stations at The Lizard and Poldhu, *ib.* 2682–2688—Witness considers the Marconi system perfect, as also the Admiralty adaptation of it, *Heaton* 2722–2726—Strained relations between Marconi and Post Office due to the former's rejection of a low offer for his patents, *ib.* 2736–2742.

The unjust treatment of Marconi due to “official stupidity,” *ib.* 2743–2753—Government should control the Marconi system, *ib.* 2777, 2778—The best system at any moment should be adopted; non-adherence or refusal to intercommunicate would not prevent this; in any case no other system is at present of importance or does any commercial business, *ib.* 2785–2803.

Undesirability, owing to non-intercommunication, of installing Marconi system on Brazil and River Plate systems, though urged by a Marconi Company in the Argentine. *Philippa* 2869, 2873–2879—Strained relations between Post Office and Marconi Company, *Marconi* 3080–3085

Cargo boats might operate Marconi apparatus under due regulations; an International Convention could not exercise as much control, *ib.* 3121–3127—Witness approves of free competition with due respect to priority of working, *ib.* 3133, 3134—Scientifically, equality of opportunity is desirable; commercially, advantage of priority should be maintained, *ib.* 3186–3190.

The foreign element in the directorate of the Marconi Companies, *ib.* 3274—Two possible lines of action by the Company in the event of ratification, *ib.* 3275–3278—Predominant position of Company due to priority, to technical superiority, and to organisation; in this last there are no competitors, *ib.* 3288–3292

The position aforesaid not due to special advantages conferred by Government, which indeed hesitated to connect up the shore stations; an original equality of opportunity, *ib.* 3293–3296

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ib. 3293-3296—As to the enforcement of penalties and the institution of the bonus system, *ib.* 3308*-3311—Witness asks permission to demonstrate practically any doubtful point at a Marconi station, *ib.* 3311, 3312.

Dissent from the statement that a fortnight's training is sufficient for a wireless operator, *Proce* 3397-3405, 3510, 3511 3514, 3516—General condemnation of the management and organisation of the Marconi Company, *ib.* 3418, 3419—Development of wireless telegraphy not greatly due to Marconi; the Marconi position arises from priority in obtaining licences, *ib.* 3432-3435.

The Marconi Company is not a unique organisation, though secure of the Channel traffic with German ships owing to priority of licensing, *ib.* 3462-3469—The Marconi public organisation is highly efficient, *ib.* 3517, 3518.

Consideration of Mr. Cuthbert Hall's statement that witness misled the Company as to the intentions of the Admiralty with respect to intercommunication; a possible misunderstanding, *Bethell* 3726-3734.

Importance of ship-to-ship telegraphy; the Company must abandon many ship stations or accept intercommunication as with Scheveningen and in Argentine Republic, *Bright*, 4034—Criticism of the efficiency of the Marconi organisation, especially in respect of the percentage error and of the "bonus" system, *ib.* 4052-4055—As to a circular and a covering letter from the Company which serve as an indication of the origin of certain articles in the German press, *ib.* 4056-4070.

Number of Marconi and other stations, *Rep.* v.—Consideration of the position of the Marconi Company in view of the proposed ratification of the Convention; its possible effects on agreements, patent rights, business; a question of compensation in case of adverse effects, *Rep.* xxi.-xxiii.

See also *Argentine Republic. Belgium. Convention, Probable Results of. Marconi Company, Agreements with. Patent Rights.*

Marconi Company, Agreements with.—Previous to the Act of 1904 monopoly of Postmaster-General did not extend beyond territorial waters, and various Marconi stations were established; agreement with Marconi Companies of 11th August, 1904, granting licences to specified stations for eight years under certain detailed conditions, *Balington Smith* 67-70—Some provisions of the agreement, especially that by which the Companies undertake, under conditions, to accept the provisions of the Convention of 1903, including compulsory intercommunication "without prejudice to patent rights" varying interpretations of this phrase, *ib.* 71-76, 501-508.

The Company may reasonably, by the terms of their agreement, be required to change their policy, *ib.* 307-310—Opinion, based on legal advice, that the Post Office agreement does not entail a Marconi monopoly; no analogous case in the history of ordinary telegraphy, *ib.* 311-319.

Ratification would not affect the Post Office agreement, but would relieve the Admiralty and Lloyd's as regards intercommunication; a small extra charge will fall on the Exchequer for three years in payment of the additional rate, *ib.* 388-398—Advantages accruing to the Company under agreement with Post Office, *ib.* 496-500—In case of non-adherence, Marconi Company could probably obtain no agreements with foreign powers, *ib.* 518-522.

Terms of agreement of 1903 between Admiralty and Marconi Company; also of agreement of 1904 between Post Office and Company containing clause relative to a possible Convention; this last relieves Admiralty from claim for compensation, *Daniell*, 601-606, 759-769—The Post Office-Marconi agreement was purely voluntary, *ib.* 726, 727.

Representation of Marconi Company as to their agreements, *ib.* 891-893—Determination of the Marconi agreement would not injure Admiralty work, *Payne*, 1047, 1048.

The exclusive agreement of 1901 with Lloyd's; friction caused by a private arrangement of Lloyd's with the Admiralty, *Hall* 1261-1266—The two agreements with the Admiralty; suggestion that the Admiralty copied Marconi apparatus; a misprint as to amount of royalty paid, *ib.* 1267-1277—Details of agreements with Canadian and foreign Governments, *ib.* 1278-1282.

As to contracts with German and French shipping companies; suggested *impasse* on ratification, unless right of exemption is exercised, *ib.* 1333-1349—Non-intercommunication is justified by the terms of the contracts and is to the public interest, *ib.* 1350, *et seq.*—Details of circumstances under which Post Office agreement was entered into, of which the chief advantage lay in the collection of rates and facility of transmission, *ib.* 1488-1502.

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Contention that the terms of the agreement which release the Admiralty from that agreement under certain conditions here specified do not imply that the Admiralty favoured intercommunication; on the contrary there was consistent opposition until the eve of the Conference, *ib.* 1574-1587—Details as to date of expiry of various agreements with shipping companies of foreign countries, *ib.* 1657-1684.

Agreement in 1901 with a Marconi Company, varied in 1905 by terms of settlement; list of stations equipped under the agreement; resulting litigation, *Ingfield* 2034-2037—Marconi's the only organised system in 1901; hence Lloyd's agreement to forego intercommunication and adherence to the prohibition, *ib.* 2038-2040—As to relief from agreement in case of ratification; witness was not a party to insertion of this provision, *ib.* 2062-2071, 2088-2091—As to the making of a similar agreement at the present time, *ib.* 2095-2100.

Contracts between Marconi Company and shipping companies, *Marconi* 3169, 3170—Although Lloyd's, the Allan Line and the Royal Mail Company are presumably now in favour of intercommunication, the Marconi Company holds a large number of shipping contracts antagonistic to this principle, *ib.* 3196-3203.

Terms of settlement between Lloyd's and the Marconi company condemned, *Preece* 3582-3584—Answer to Sir William Preece's description of Clause 4 of the terms of settlement between Lloyd's and the Company, that "it looks like blackmailing"; reasons for inserting such a clause, the Company, though defendants, being in a position to secure its inclusion, *Hall* 3877—With reference to the agreement with the Argentine Government, the Company will cease work in 1908 unless they accept intercommunication, *ib.* 4003-4014—Witness declines to make any definite statement as to the anticipated effect of the proviso "without prejudice to patent rights" as inserted in the Post Office contract, *ib.* 4015-4021.

Agreements made with the Company by the Admiralty and by Lloyd's, *Rep.* vii, viii

See also *Licences* *Lloyd's*.

Muskelyne, Nevil, F.R.S.—(Digest of his Evidence.)—Witness is technical adviser to the Amalgamated Radiotelegraph Company, which embraces the De Forest, Poulsen, and other systems; its financial status, etc., 2523-2529, 2531, 2532—A list of contracts completed, showing a proved range of over 800 miles, and of countries with whom contracts are under negotiation, 2530, 2533-2536.

Ratification will involve the use of both De Forest and Poulsen systems, the latter for exempted stations, 2537, 2538, 2543—Dealings with Government Departments, 2539-2542—The expert staff and training of operators; number of patents and names of patentees, 2544-2549.

Existing radiotelegraphic systems differ as regards:—(1) The manner of producing Hertzian waves, whether spark or arc, 2550-2553—(2) Characteristics of waves produced, whether of decreasing or of constant energy, 2554—(3) Method of detection, whether the direct or relay (trigger principle) method, 2555-2557—(4) Means employed for tuned or selective signalling—the process described and its possibilities and limitations indicated, 2558, 2559.

Reasons for superiority of the continuous wave or arc system, tending to produce efficiency and selectivity with 1 per cent. difference of wave-length, 2560-2566—Licences for coast stations refused, although the Poulsen system cannot interfere with others, and consequent loss of business; ratification of Convention would benefit Marconi Company as much as others, while it would benefit Great Britain, whose delegates dictated much of its wording, 2567-2569.

Witness controverts Mr. Cuthbert Hall's evidence, especially as regards:—(1) The aerial and earth connections, 2571—(2) The Marconi Company as maintaining the only public service, 2572—(3) Justification of non-intercommunication, 2573—(4) The impracticability of intercommunication, this being entirely contrary to the Company's pretensions, 2573*—(5) Means of preventing interference, 2574—(6) Interference experienced by the Navy, 2575—(7) Protection of patent rights, 2576.

The Convention would not cripple the Poulsen system, the De Forest being simultaneously installed at present and thus exemption being unnecessary; the Poulsen has a definite wave-length, but could not communicate except with another continuous-wave system; it will possibly supersede all others, 2578-2596—Untrue report of communication between Denmark and Danish West Indies, 2597—While the Poulsen system needs longer wave-lengths than those stipulated, these give elasticity sufficient for an efficient De Forest service, 2598-2607.

Contracts under negotiation in the Colonies; stations, if erected, would have to intercommunicate: for this, uniform regulations under central authority are essential, 2608-2616—Under the Convention wilful interference is improbable; without it, interference

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interference is certain, whether wilful or unavoidable, 2617-2621—Ships must cease to carry Marconi apparatus or will be most restricted in communicating, 2622-2628.

Legal actions with the Marconi Company, 2629, 2630—The regulations against interference would be effective, 2631, 2632—Simultaneous deciphering of messages on Poulsen system depends upon delicacy of tuning; while spark stations should be 50 miles apart, a neighbouring arc station would not interfere, 2633-2640.

Reasons for refusal of licences; these vanish in the Convention, whose regulations render the bonus system unnecessary, 2641-2646—As to the present and the future control of operators, 2647-2656—The present small percentage of error could be achieved far more readily, 2657-2661.

The five commercial stations of the Company and those of the American Company, 2662-2672—The large Marconi organisation due to priority of opportunity, 2673-2676—Possibility of ships carrying apparatus of two or more systems, 2677-2681.

Possible close propinquity of stations under the Lodge system; doubt as to simultaneous efficiency of the Marconi stations at The Lizard and Poldhu. 2682-2688—The allotted wave-lengths sufficient for full communication during time in which a vessel is in range, 2689-2694.

A vessel using power to five kilowatts could, in case of non-adherence, derange the working of British stations, whether wilfully or necessarily in order to communicate with its own stations, 2695-2705—Sufficient elasticity in wave-length for practical purposes with inexpert operators, 2706-2709.

Monopoly.—Opposition of Marconi Company to intercommunication in the endeavour to secure a monopoly, though other reasons are put forward, *Babington Smith* 288-291—A monopoly would be objectionable from scientific, strategic and economic points of view and would be specially objectionable to the Colonies, *ib.* 292, 293, 296, 297.

No justification for allowing such a monopoly, *ib.* 294, 295—Destruction of argument that a Marconi monopoly would retain wireless telegraphy in British hands; the Marconi system very far from universal, *ib.* 298, 299—As to the extent to which the Marconi Company possesses a monopoly at home and abroad; this greatly due to priority in the field and to the cessation of licensing pending the result of the Berlin Conference, *ib.* 441-457, 490, 491.

Marconi Company cannot claim a world-wide service, *Daniell* 841-845—The Convention more satisfactory than a Marconi predominance, *Payne* 983—The expansion of traffic has freely developed under the "monopoly," or, more correctly, predominant command of business; the Convention destructive of this, *Hall* 1718-1723.

Dissent from view that the Marconi preponderance arises from restricted issue of licences; no extra licences issued or required since 1904, nor any special development of other systems, especially on the French coast, *ib.* 1757-1774—Before the Act of 1904, steamship companies adopted the Marconi system, and this preference still subsists, *ib.* 1775-1781.

Simplest control is by a monopoly; this being impossible, the best is by Convention affecting all operators alike, *Gavvy* 1880-1887—Witness would not approve of a monopoly for any system, *Lodge* 2170—"Free trade" is essential as opposed to a weak monopoly, weak in assuming a patent covering wireless telegraphy, *Preece* 3414-3417.

The main object of the Convention to establish "equality of opportunity" and to this Mr. Marconi verbally agrees, though the Company desires to secure its "monopoly," *ib.* 3436-3448—Lloyd's monopoly of maritime intelligence is hardly analogous to the Marconi monopoly; reasons for this view, *ib.* 3449-3458.

Opinion formed previously to the Convention that the Marconi organisation, if extended, would strengthen Great Britain's position, while a Convention would limit her freedom; subsequent view that a British monopoly is impossible and that the Convention will give all corresponding advantages without the inevitable objections, *Payne* 3633, 3634.

Monopoly in things electrical is detrimental to the interests of the nation and of scientific progress, as also to shipowners; it would probably foster an antiquated and costly service, *Bright* 4049—Monopoly would maintain the high cost of apparatus; the Marconi Company have, by refusal to communicate, claimed a monopoly both of apparatus and of transmission, even though they agreed to communicate in case of legislation to that effect, *ib.* 4050.

The word "monopoly" as applied to the claims of the Marconi Company, *Rep.* xxi.

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Muirhead, Henry (Digest of his Evidence).—Witness (who gives evidence in the case of his brother) refers to the transmission of messages 580 miles under half-horse power, 2345, 2359—Formation, capital, &c., of the Lodge-Muirhead Company, 2346–2348—First demonstration of radiotelegraphy by Lodge in 1894, and first published patent in 1897, two months before Marconi's; demonstrations to the Post Office and other Departments, especially at Hythe, in avoiding intentional interference, 2349, 2350.

Continual refusal of the Post Office, perhaps instigated by the Admiralty, to grant licences for commercial stations, except to the Marconi Company; alleged infringement of patent by the Admiralty, and their refusal to test this in court of law, 2351–2358—Use of the system by other Governments, especially in Andaman Islands, by the War Office, and by the Midland Railway at Heysham, 2359–2364.

As to the Lodge patents; American master patents for the essentials of wireless telegraphy and for tuning; extent and limitations of a master patent, which covers all essentials but not all details, 2365–2371, 2375, 2386–2388—Actions in process with the Marconi Company, 2372–2374—The patents include the first method of syntonising, patented before Marconi's patent, 2376–2384.

Action against Marconi Company for threats directed against War Office, 2385—Ease in operation of the system: short training of operators in works at Elmers End, 2389–2393—Efficiency in avoidance of interference for ship-to-shore service, 2394–2398.

The Convention and Regulations entirely satisfactory and to the advantage of Great Britain, 2399–2402—The Marconi system "endowed" by the British Government; the Lodge-Muirhead system would be equally efficient and should be free to compete, 2403–2412—Many coast stations should be erected; the power of the system, though overwhelmingly great on occasions, can be modified as necessary to such a multiplicity of stations, 2413–2420.

British preponderance in shipping accentuates desirability of ratification to avoid a possible "wireless war," 2421–2435—Further as to priority of Lodge's patents and alleged unfairness of the Wireless Telegraph Act of 1904; the Postmaster-General's monopoly of electric communication used to the advantage of Marconi 2436–2454—The Marconi Company not a commercial organisation until 1901 and then endowed by Government to the detriment of other companies, 2455–2464.

Dealings of Marconi with the Post Office, and experiments at the public expense; suggestion that the invention is largely due to the Post Office officials; facts as to the magnetic detector, 2465–2477—Difference between duplex and simplex telegraphy, the possibility of each depending on adjustability of wave-length 2478–2483—Commercial licences refused because of Marconi agreement and to avoid disturbance, 2484, 2485.

An English Company could not initiate a "wireless war," but foreign Governments would be induced by anger and pique to alter the Convention to render "war" possible; or perhaps it might be without alteration of the Convention, 2486–2503—The British preponderance of shipping would not render such a "war" unlikely, but might lead foreign Governments to set aside their own convenience in order to interfere deliberately, 2504–2522.

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Nauen.—Witness is of opinion that the German long-distance station at Nauen may send messages into the Atlantic provided no interference results, but can receive no answers, *Daniell* 770–787—Further as to the possibilities of the station at Nauen *ib.* 937–945—The station at Nauen while employed in long-distance work cannot possibly interfere with ship-to-shore telegraphy, this being on a small power; it might communicate news messages but this would not affect the number of small-power stations, *Payne* 1012–1026.

Nauen very unlikely to interfere with Poldhu; no regulation yet possible of such stations, *Loring* 1162–1166—Impossibility of ships in the Atlantic communicating with Nauen, *ib.* 1173, 1174.

See also *Long Distance Stations*.

Naval Interests.—Naval interests directly affected only by articles preventing interference "as far as possible," and referring to signals of distress, *Daniell* 640–646—Naval work as affected by Articles prohibiting superfluous signals, enjoining efficiency in operators and apparatus, dealing with breaches of the Convention, determining procedure in calling, preventing use of excessive power, and insisting on communication with nearest shore station, *ib.* 664–673.

Proportion of naval to commercial stations, *ib.* 693, 694—The naval safeguards considered essential to British signature of Convention, including excision of the "boycotting"

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"boycotting" Article and alteration of the arbitration Article, *ib.* 700, 701, 704-721—Complete Admiralty approval of the Convention, *ib.* 728-730.

Naval stations such as Hong-Kong, Malta and Gibraltar are not governed by the Convention and so the regulations as to exemption will not apply, *ib.* 748-758—The Admiralty fully justified in accepting intercommunication despite their agreement, *ib.* 799-802—Right of exemption and disciplinary powers necessary to approval of Admiralty, *ib.* 803-806.

Prime interests of Admiralty are freedom in time of war and safety from interference; for this ratification is essential, *ib.* 834-840, 846—Independent position of Admiralty in the matter of wireless telegraphy, they using their own system, *ib.* 886-890, 921-929—As to the special system used by the Navy, *Loring* 1127-1131.

Complete change in attitude of Admiralty towards intercommunication, the First Lord in 1901 suggesting an exclusive licence, the Post Office concurring and the Admiralty making an exclusive contract on the eve of the first Conference, *Hall* 1553-1565—Any message liable to be read at stations other than intended both now and in event of ratification, *Gavey* 1938-1944—In advocating limits of wave-length the Admiralty have not shown foresight, *Fleming* 3626.

The Navy will benefit from ratification owing to (1) freedom from interference by commercial stations; (2) ease of communication with ships, naval or mercantile, in time of war; (c) ability to utilise Mercantile Marine in time of war; (d) ability of British commercial stations to avoid interference with naval wave-lengths; (e) multiplication of "look-outs" in time of war, *Payne*, 3639-3641—Organisation more difficult for naval than for commercial purposes; practical experience of attempted interference defeated by Admiralty organisation, *ib.* 3642-3648.

Witness describes the Admiralty policy in respect of wireless telegraphy; reasons for which he advised an attitude of reserve in 1903; his opposition to compulsory general intercommunication in 1904; inter-departmental discussions culminating in a meeting on 24th February, 1904, at which conditions were drawn up under which intercommunication might be accepted, *Bethell* 3664-3670—Agreement that the Convention would be beneficial to naval interests, *ib.* 3692-3696, 3816-3818—No change of policy at the Admiralty, exemption being an additional security; personal opinion supporting that of the Admiralty, *ib.* 3697-3707.

The Admiralty favoured general intercommunication under conditions, the private opinion of witness being opposed to the official policy until exemption was proposed; subsequently there was no difference of opinion among the delegates, *ib.* 3708-3719—The enforcing of "wireless" regulations in the Navy, *ib.* 3796-3798—Further as to development of opinions at the Admiralty on intercommunication and as to relations between witness and Mr. Cuthbert Hall, witness having been in favour of the Post Office agreement, *ib.* 3803-3811.

Absolute dissent from views of Admiralty delegates, *Hall* 4028-4030—The strategic position fully safeguarded, *Bright* 4048.

Relations between Admiralty and Marconi Company, *Rep.* vii.—Appropriation for naval use of wave-lengths between 600 and 1,600 metres, *Rep.* xv.—Conviction of the Committee that naval interests are fully protected and provided for by the Convention; discussion of evidence leading to this belief, *Rep.* xviii.-xx.—Ratification is absolutely essential to the interests of the Navy, *Rep.* xxv.

See also *Admiralty Exempted Stations Intercommunication Marconi Company, Agreements with.*

Newfoundland. See *Intercommunication Votes.*

New Zealand.—Witness describes his appointment by New Zealand as delegate to Berlin and his exclusion owing to non-representation of Colonies at the instance of Germany, *Heaton* 2710-2721.

See also *Canada.*

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Patent Rights.—Rejection of British proposal intended to prevent prejudice to patent rights by intercommunication, *Babington Smith* 425-428—As to safeguarding of patent rights, *ib.* 429.

Legal opinion that intercommunication will prejudice patent rights, *Hall* 1384-1387—Opinion of Counsel on the legal position under the contract; also affirming that if intercommunication will prejudice patent rights, there is no obligation to inter-communicate

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communicate, *ib.* 1437-1444—Witness considers provision of non-exempted stations impracticable and an interference with patent rights; reference to decisions in such cases in the United States, *ib.* 1445-1450.

Opinions and decisions favourable to the contention that the Marconi patent is a good patent; this includes syntonisation and would render non-exempted stations liable to legal action, *ib.* 1450-1455—With respect to patent rights witness speaks as to the agreement to intercommunicate with Scheveningen, and insists that the English Government could not exercise their right of using patents, even by passing an Act maintaining the position of the patent, *ib.* 1468-1483.

As to the Lodge patents; American master patents for the essentials of wireless telegraphy and for tuning; extent and limitations of a master patent, which covers all essentials but not all details, *Muirhead* 2365-2371, 2375, 2386-2388—Actions in process with Marconi Company, *ib.* 2372-2374—The patents include the first method of syntonising, patented before Marconi's patent, *ib.* 2376-2384.

Action against Marconi Company for threats directed against War Office, *ib.* 2385—Witness controverts Mr. Hall's evidence as regards protection of patent rights, *Muskelyne* 2576.

Intercommunication will prejudice patent rights, *Marconi* 3061. Postponement of patent litigation in Germany; successful action in United States rendered futile by liquidation of defending company, *ib.* 3242-3246—Litigation is inevitable but without a Convention will be more easy of adjustment according to the interests concerned, *ib.* 3247-3250.

Examination of Memorandum by the Solicitor to the Post Office (*App.* No. 4); in respect of the possible prejudice to patent rights in case of intercommunication, a contrary opinion given by Mr. Warmington, K.C., and Mr. J. M. Gover; view of witness that the Government cannot pledge itself to the provision of non-exempted stations in view of the Marconi general patents and particularly that for tuning, *Hall*, 3878, 3879—The decision against the De Forest Company in New York State asserted to be binding throughout the United States, *ib.* 3879, 3880—The "De Forest" decision is presumptive evidence that Marconi Company holds a patent governing all wireless telegraphy, the unsuccessful defence being that of anticipation, *ib.* 3883.

Inaction of Marconi Company in respect of litigation against other Companies would not prejudice any future action, this being unreasonable and inequitable and the inaction being due to the unsubstantial position financially of other Companies, *ib.* 3883—The assumption of Marconi patents by Government would be immoral and would encourage infringement of patent rights, *ib.* 3883—The decision against the De Forest Company establishes a controlling patent for the Marconi Company; alleged misrepresentation by the De Forest Company, *ib.* 3906-3909, 3934.

Witness is not aware that the Marconi Company has been refused an injunction on the ground that the De Forest no longer use their patent rights, *ib.* 3910-3933—Further concerning legal opinion as to prejudice of patent rights; no prejudice arising from inaction in respect of the Telefunken and Lodge-Muirhead Companies; reasons for such inaction, *ib.* 3940-3963—Opinion of Mr. Wormington is not invalidated or modified by consideration of compulsory service, *ib.* 3985-3989.

Discussion of the effect of ratification upon the patent rights of the Marconi Company, *Rep.* xxii—The priority of the Marconi patents, *App.* No. 2, pp. 4, 5—The effect of the Convention upon such rights, *ib.* p. 6.

Memorandum by Sir Robert Hunter, solicitor to the Post Office, on the effects of the Convention on the Marconi agreements and patent rights, *App.* No. 4.

See also *Lodge-Muirhead Company*. *Scheveningen*. *Slaby*.

Payne, Commander C. R., R.N. (Digest of his Evidence).—Witness has had varied experience and is in charge of the wireless telegraphy on H.M.S. Vernon, a school at Portsmouth; he gives evidence of a technical nature approved by Admiralty, 948-953, 966, 967.

Intercommunication generally possible; chosen wave-lengths practical and sufficient, 954-956—Ratification of the Convention will diminish confusion and organise traffic, 957-959, 994-996—The relative merits of various instruments, 960.

No fresh ideas from Marconi Company since December, 1905; direction experiments previously and independently reported by Lieutenant Ryan, R.N., 961, 968-971, 977-982—All commercial stations should come under the Convention; exemption will be rarely necessary, 963, 987, 988—Importance of early ratification, 964, 965.

With one kilowatt of power and 300 metres wave length, a ship must be well equipped and adjusted to be efficient, 972-976—The Convention more satisfactory than a Marconi predominance 983—Stations with different wave lengths should be fifty miles apart, 984-986.

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An exempted station not necessarily impaired by its substitute station, 989, 990—Allocation of special wave-lengths does not constitute a danger, 991-993—Specially skilful operators would obviate the disadvantage of two stations erected on a small area, as at Gibraltar; under very different wave-lengths no confusion could ensue, 997-1011.

The station at Naven while employed in long-distance work cannot possibly interfere with ship to shore telegraphy, this being on a small power; it might communicate news messages, but this would not affect the number of small power stations, 1012-1026—Early ratification will permit of more attention to detail, 1027-1030—Long distance stations can with difficulty communicate with, and can easily avoid, short distance stations; the former are mostly unaffected by the Convention, 1033-1046.

Determination of the Marconi agreement would not injure Admiralty work, 1047, 1048—As to wave lengths used from ship stations, 1049-1055—A station at Gibraltar might suffer interference from a neighbouring Spanish station, 1056-1061.

[*Further Examined*].—Witness was a delegate to Berlin in 1903 and is Chief Technical Adviser to the Admiralty on Wireless Telegraphy, 3630-3632—Opinion formed previously to the Convention that the Marconi organisation, if extended, would strengthen Great Britain's position, while a Convention would limit her freedom; subsequent view that a British monopoly is impossible and that the Convention will give all corresponding advantages without the inevitable objections, 3633, 3634.

The Convention will establish an organisation for general communication; witness shows how non-adherence by Great Britain will lead to a general desire to participate in an agreement over which she has no control, 3635, 3636—Technical difficulties in communication can be overcome; the modification in form of waves has been gradual and continuous from strongly-damped to undamped waves, and the forms of apparatus have changed concurrently, 3637, 3638.

The Navy will benefit from ratification owing to (a) freedom from interference by commercial stations (b) ease of communication with ships, naval or mercantile, in time of war (c) ability to utilise Mercantile Marine in time of war (d) ability of commercial stations to avoid interference with Naval wave lengths (e) multiplication of "look outs" in time of war, 3639-3641, 3658, 3659—Organisation more difficult for naval than for commercial purposes; practical experience of attempted interference defeated by Admiralty organisation 3641-3648.

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AND
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TO THE
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FROM THE
SELECT COMMITTEE
ON THE
RADIOTELEGRAPHIC
CONVENTION.

SESSION 1907.

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FROM THE

STANDING COMMITTEE

ON

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AND FISHING), SHIPPING AND
MANUFACTURES,

ON THE

RAILWAYS (CONTRACTS) BILL,

WITH THE

PROCEEDINGS OF THE COMMITTEE.

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STANDING COMMITTEE ON TRADE (INCLUDING AGRICULTURE AND FISHING), SHIPPING AND MANUFACTURES.

[*Thursday, 21st February, 1907*]:—Sir William Brampton Gurdon reported from the Committee of Selection; That they had nominated the following Members to serve on the Standing Committee for the consideration of all Bills relating to Trade (including Agriculture and Fishing), Shipping and Manufactures, which may, by Order of the House, be committed to such Standing Committee:—

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Sir Frederic Cawley.
Mr. Evelyn Cecil.
Sir Francis Channing.
Mr. Cheetham.
Mr. Courthope.
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Mr. T. W. Russell.
Mr. Shackleton.
Mr. Smeaton.
Mr. Soames.
Mr. Solicitor-General for Scotland.
Sir Edward Strachey.
Mr. John Talbot.
Mr. Austin Taylor.
Mr. Theodore Taylor.
Mr. David Alfred Thomas.
Mr. Verney.
Mr. Walrond.
Mr. Walsh.
Mr. Cathcart Wason.
Mr. George White.
Mr. Osmond Williams.
Lord Willoughby de Eresby.
Mr. Wolff.
Mr. Young.

[*Monday, 4th March, 1907*]:—Standing Committees (Chairmen's Panel).—Mr. Stuart-Wortley reported from the Chairmen's Panel; That they had appointed Mr. Eugene Wason to act as Chairman of the Standing Committee for the consideration of Bills relating to Trade (including Agriculture and Fishing), Shipping, and Manufactures.

Mr. Stuart-Wortley further reported from the Chairmen's Panel; That they had agreed to the following Resolution, That any Member of the Chairman's Panel be and he is thereby empowered to ask any other Member of the Chairman's Panel to take his place in case of necessity.

[*Wednesday, 6th March, 1907*]:—Standing Committees.—*Ordered*, That all Standing Committees have leave to print and circulate with the Votes the Minutes of their Proceedings, and any amended Clauses of Bills committed to them.

[*Tuesday, 12th March, 1907*]:—Selection (Standing Committees).—Sir William Brampton Gurdon reported from the Committee of Selection; That they had discharged the following Members from the Standing Committee on Trade (including Agriculture and Fishing), Shipping,

and Manufactures: Mr. Charles Nicholson, Mr. Manfield, and Mr. Crombie; and had appointed in substitution: Dr. Pollard, Mr. Rogers, and Mr. James Murray.

[*Friday, 15th March, 1907*]:—Railways (Contracts) Bill,—read a second time, and committed to the Standing Committee on Trade, &c.

[*Tuesday, 19th March, 1907*]:—Sir William Brampton Gurdon reported from the Committee of Selection: That they had added to the Standing Committee on Trade (including Agriculture and Fishing), Shipping, and Manufactures, the following Fifteen Members in respect of the Railways (Contracts) Bill: Mr. Lambton, Sir William Holland, Mr. Abel Smith, Viscount Helmsley, Mr. Hyde, Mr. Beale, Mr. Mond, Mr. Clement Edwards, Mr. Myer, Mr. Brunner, Mr. Crooks, Mr. Akers-Douglas, Mr. John Williams, Mr. Menzies, and Mr. Wedgwood.

[*Friday, 22nd March, 1907.*]:—Selection (Standing Committees),—Sir Willam Brampton Gurdon reported from the Committee of Selection; That they had discharged the following Member from the Standing Committee on Trade (including Agriculture and Fishing), Shipping and Manufactures (in respect of the Railways (Contracts) Bill): Mr. Akers-Douglas; and had appointed in substitution: Sir Frederick Banbury.

R E P O R T.

THE STANDING COMMITTEE ON TRADE (INCLUDING AGRICULTURE AND FISHING), SHIPPING AND MANUFACTURES, to whom the RAILWAYS (CONTRACTS) BILL was referred;—Have gone through the Bill and have agreed to report the same without Amendment.

25th March, 1907.

STANDING COMMITTEE ON TRADE (INCLUDING AGRICULTURE AND
FISHING), SHIPPING AND MANUFACTURES.

Monday, 25th March, 1907.

MEMBERS PRESENT :

MR. EUGENE WASON, in the Chair.

Mr. Attorney-General.
Sir Frederick Banbury.
Mr. Beale.
Mr. Evelyn Cecil.
Sir Francis Channing.
Mr. Cheetham.
Mr. Crooks.
Mr. Cross.
Mr. Vaughan-Davies.
Mr. Duckworth.
Mr. Clement Edwards.
Mr. Everett.
Mr. Munro Ferguson.
Viscount Helmsley.
Mr. Hooper.
Mr. Idris.
Mr. Lambton.

Mr. Lloyd-George.
Mr. Mansfield.
Mr. Menzies.
Mr. Mond.
Mr. James Murray.
Mr. Myer.
Mr. Parkes.
Mr. Partington.
Sir George Robertson.
Mr. John Robertson.
Mr. Rogers.
Mr. Smeaton.
Mr. Abel Smith.
Mr. Austin Taylor.
Mr. Verney.
Mr. Cathcart Wason.
Mr. Wedgwood.

RAILWAYS (CONTRACTS) BILL.

Clause 1.

Amendment proposed, in page 1, line 10, to leave out the words "the gross negligence," in order to insert the words "negligence of a serious character"—(*Mr. Evelyn Cecil*)—instead thereof.—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 1, line 12, after the word "notwithstanding" to insert the words "and for the purposes of this section 'gross negligence' shall mean the neglect or failure to use such care, skill, and diligence as persons ordinarily use and require their servants to use in their own affairs, and shall not mean the neglect or failure to take further precautions or use special skill by reason of the contract of carriage for hire"—(*Mr. Beale*).—Question, "That those words be there inserted,"—put, and *negatived*.

Another Amendment proposed, in page 1, line 16, after the word "the," to insert the words "increase or"—(*Sir Frederick Banbury*).—Question, "That those words be there inserted,"—put, and *negatived*.

Another Amendment proposed, in page 2, line 5, after the word "rate," to add the words :

"Provided that, for the purpose of proving that any increase of a rate or charge within the meaning of this subsection is reasonable, it shall not be sufficient to show that it was made in consequence of the provisions of this Act "

—(*Sir Frederick Banbury*).—Question, "That those words be there added,"—put, and *negatived*.

Clause 2, *agreed to*.

Ordered, To Report the Bill, without Amendment, to the House.

R E P O R T

FROM THE

STANDING COMMITTEE

ON

TRADE (INCLUDING AGRICULTURE AND FISHING),
SHIPPING AND MANUFACTURES.

ON THE

RAILWAYS (CONTRACTS) BILL,

WITH THE

PROCEEDINGS OF THE COMMITTEE.

*Ordered, by The House of Commons, to be Printed
25 March, 1907.*

[*Price 1d.*]

R E P O R T

FROM

STANDING COMMITTEE B

ON THE

Released Persons (Poor Law Relief) Bill.

WITH THE

PROCEEDINGS OF THE COMMITTEE.

*Ordered, by The House of Commons, to be Printed,
17th June, 1907.*

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E. PONSONBY, 116, GRAFTON STREET, DUBLIN.

1907.

1907.

STANDING COMMITTEE B.

[Monday, 4th March, 1907] :—Mr. Stuart-Wortley reported from the Chairman's Panel : That they had agreed to the following Resolution, That any Member of the Chairman's Panel be and he is thereby empowered to ask any other Member of the Chairman's Panel to take his place in case of necessity.

[Wednesday, 6th March, 1907] :—Standing Committees,—Ordered, That all Standing Committees have leave to print and circulate with the Votes the Minutes of their Proceedings, and any amended Clauses of Bills committed to them.

[Tuesday, 23rd April, 1907] :—Selection (Standing Committees and Chairmen's Panel),—Sir William Brampton Gurdon reported from the Committee of Selection; That they had nominated the following Members to serve on the three Standing Committees for the consideration of all Public Bills, not relating exclusively to Scotland, which may be committed to a Standing Committee.

STANDING COMMITTEE B.

Sir John Baker.
Captain Balfour.
Mr. Barnard.
Mr. Bridgeman.
Mr. Bright.
Mr. Burns.
Mr. Butcher.
Mr. Byles.
Viscount Castlereagh.
Lord Robert Cecil.
Sir Francis Channing.
Mr. Cleland.
Mr. Clynes.
Major Coates.
Mr. Cochrane.
Dr. Cooper.
Sir Edwin Cornwall.
Sir Henry Cotton.
Mr. Courthope.
Mr. Vaughan-Davies.
Mr. Evans.
Mr. Ferens.
Mr. Flynn.
Mr. Haddock.
Mr. George Hardy.
Mr. Harwood.
Mr. James Haslam.
Mr. Hazleton.
Colonel Ivor Herbert.
Mr. Higham.
Mr. Hooper.
Mr. Hutton.
Mr. William Jones.

Mr. Kennedy.
Mr. Kettle.
Sir Henry Kimber.
Mr. Lane-Fox.
Sir Joseph Leese.
Sir Francis Lowe.
Dr. Macnamara.
Mr. Massie.
Mr. Meehan.
Mr. Mond.
Mr. Mooney.
Mr. Murray.
Mr. Nannetti.
Mr. Nicholls.
Mr. Nolan.
Mr. Parker.
Mr. Paulton.
Sir Francis Powell.
Mr. Charles Price.
Mr. Rainy.
Mr. Richardson.
Mr. John Robertson.
Mr. Rogers.
Mr. Solicitor-General.
Mr. Soares.
Mr. Austin Taylor.
Mr. David Alfred Thomas.
Mr. Walsh.
Mr. Walton.
Sir Thomas Whittaker.
Mr. Wolff.
Mr. Wyndham.
Mr. Yoxall.

[Friday, 24th May, 1907] :—Released Persons (Poor Law Relief) Bill,—read a second time, and committed to a Standing Committee.

[Monday, 27th May, 1907] :—

DISTRIBUTION BY MR. SPEAKER, PURSUANT TO STANDING ORDER 47, OF BILLS COMMITTED TO A STANDING COMMITTEE.

Name of Bill.	Standing Committee.
Released Persons (Poor Law Relief) Bill	B.

[*Tuesday, 14th May, 1907*]:—Standing Committees (Chairman's Panel).—Mr. Stuart-Wortley *reported* from the Chairman's Panel; That they had appointed Sir William Holland to act as Chairman of Standing Committee A, in the place of Sir Thomas Esmonde; and Sir David Brynmor Jones to act as Chairman of Standing Committee B, in the place of Mr. J. W. Wilson.

[*Tuesday, 28th May, 1907*]:—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had added the following Member to Standing Committee B: Mr. Henniker Heaton.

Sir William Brampton Gurdon further *reported* from the Committee; That they had discharged the following Members from Standing Committee B (in respect of the Released Persons (Poor Law Relief) Bill): Mr. Burns and Dr. Macnamara; and had appointed in substitution (in respect of the Released Persons (Poor Law Relief) Bill): Mr. Secretary Gladstone and Mr. Herbert Samuel.

Sir William Brampton Gurdon further *reported* from the Committee; That they had added to Standing Committee B the following fifteen Members (in respect of the Released Persons (Poor Law Relief) Bill):—Mr. Du Cros, Mr. Crooks, Mr. Chaplin, Mr. Steadman, Mr. Bennett, Sir Edward Tennant, Mr. Arnold Herbert, Mr. Montgomery, Mr. T. L. Corbett, Mr. Wiles, Mr. Mackarness, Mr. Marnham, Mr. Duncan Schwann, Viscount Turnour, and Mr. Lynch.

[*Thursday, 30th May, 1907*]:—Selection (Standing Committees).—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Members from Standing Committee B (added in respect of the Released Persons (Poor Law Relief) Bill): Mr. Wiles, and Mr. Arnold Herbert; and had appointed in substitution (in respect of the Released Persons (Poor Law Relief) Bill): Mr. William Pearce and Mr. Whitwell Wilson.

[*Tuesday, 14th June, 1907*]:—Selection (Standing Committees).—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following fourteen Members from Standing Committee B (added in respect of the Released Persons (Poor Law Relief) Bill):—Mr. Du Cros, Mr. Chaplin, Mr. Steadman, Mr. Bennett, Sir Edward Tennant, Mr. Montgomery, Mr. Thomas Corbett, Mr. Mackarness, Mr. Marnham, Mr. Duncan Schwann, Viscount Turnour, Mr. Lynch, Mr. William Pearce, and Mr. Whitwell Wilson; and had appointed in substitution the following fourteen Members (in respect of the Released Persons (Poor Law Relief) Bill):—Mr. Cave, Mr. Pickersgill, Mr. Maclean, Mr. Leif Jones, Mr. Arthur Dewar, Mr. Sloan, Mr. Hall, Mr. Hogan, Mr. Smyth, Mr. Mitchell-Thomson, Mr. Charles Corbett, Mr. Clough, Major Dunne, and Sir Howard Vincent.

Sir William Brampton Gurdon further *reported* from the Committee; That they had discharged the following Members from Standing Committee B (in respect of the Released Persons (Poor Law Relief) Bill): Sir Thomas Whittaker, Mr. Bright, Mr. Duckworth, and Mr. Barnard; and had appointed in substitution (in respect of the Released Persons (Poor Law Relief) Bill): Mr. Charles Roberts, Mr. Tennant, Mr. Acland Allen, and Mr. Toulmin.

R E P O R T.

STANDING COMMITTEE B, to whom the RELEASED PERSONS (POOR LAW RELIEF) BILL was referred;—Have gone through the Bill, and have agreed to report the same without Amendment.

17th June, 1907.

STANDING COMMITTEE B.

Monday, 17th June, 1907.

MEMBERS PRESENT :

Sir DAVID BRYNMOE JONES in the Chair.

Mr. Acland Allen.
Mr. Bridgeman.
Mr. Byles.
Mr. Cave.
Mr. Cleland.
Mr. Charles Corbett.
Sir Henry Cotton.
Mr. Akers-Douglas.
Major Dunne.
Mr. Secretary Gladstone.
Mr. Henniker Heaton.
Mr. Hogan.
Mr. Leif Jones.
Sir Joseph Leese.

Mr. Maclean.
Mr. Nicholls.
Mr. Parker.
Mr. Pickersgill.
Sir Francis Powell.
Mr. Charles Roberts.
Mr. Herbert Samuel.
Mr. Austin Taylor.
Mr. Theodore Taylor.
Mr. Tennant.
Mr. Toulmin.
Mr. Walton.
Mr. Yoxall.

RELEASED PERSONS (POOR LAW RELIEF) BILL.

Clauses 1—4, *agreed to.**Ordered, To Report the Bill, without Amendment, to the House.*

R E P O R T

FROM

STANDING COMMITTEE B

ON THE

Released Persons (Poor Law Relief) Bill.

WITH THE

PROCEEDINGS OF THE COMMITTEE

*Ordered, by The House of Commons, to be Printed,
17 June, 1907.*

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Under 10s.

R E P O R T

FROM THE

STANDING COMMITTEE ON SCOTTISH BILLS

ON THE

SHERIFF COURTS (SCOTLAND) BILL.

WITH THE

PROCEEDINGS OF THE COMMITTEE.

*Ordered, by The House of Commons, to be Printed,
19 August, 1907.*

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1907.

1907.

STANDING COMMITTEE ON SCOTTISH BILLS.

[*Monday, 4th March, 1907*]:—Standing Committees (Chairmen's Panel).—Mr. Stuart-Wortley *reported* from the Chairmen's Panel; That they had agreed to the following Resolution, That any Member of the Chairman's Panel be and he is hereby empowered to ask any other Member of the Chairman's Panel to take his place in case of necessity.

[*Wednesday, 6th March, 1907*]:—Standing Committees,—*Ordered*, That all Standing Committees have leave to print and circulate with the Votes the Minutes of their Proceedings, and any amended Clauses of Bills committed to them.

[*Thursday, 25th April, 1907*]:—Selection (Scottish Standing Committee).—Sir William Bampton Gurdon *reported* from the Committee of Selection. That the following Members representing Scottish Constituencies are appointed to serve on the Standing Committee for the consideration of all Public Bills relating exclusively to Scotland and committed to a Standing Committee:—

The Lord Advocate.
Mr. Ainsworth.
Mr. Robert Balfour.
Mr. Barnes.
Mr. Beale.
Sir Arthur Bignold.
Mr. Bryce.
Mr. Buchanan.
Mr. Caldwell.
Sir Henry Campbell-Bannerman.
Mr. Chancellor of the Exchequer.
Mr. Cleland.
Sir Thomas Glen Coats.
Mr. Cochrane.
Mr. Cameron Corbett.
Sir Henry Craik.
Mr. Crombie.
Mr. Cross.
Lord Dalmeny.
Viscount Dalrymple.
Mr. Dalziel.
Mr. Arthur Dewar.
Mr. John Dewar.
Mr. Robert Duncan.
The Master of Elibank.
Mr. Erskine.
Mr. Esselmont.
Mr. Munro Ferguson.
Mr. Findlay.
Major Anstruther-Gray.
Mr. John Gulland.
Mr. Secretary Haldane.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Mr. John Deans Hope.
Sir John Jardine.

Mr. Laidlaw.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. John M'Callum.
Mr. M'Crae.
Sir Lewis M'Iver.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Secretary Morley.
Mr. James Murray.
Mr. Morton.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Dr. Rainy.
Mr. Edmund Robertson.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Mr. Tennant.
Mr. Mitchell-Thomson.
Sir Andrew Torrance.
Sir John Batty Tuke.
Captain Waring.
Mr. Eugene Wason.
Mr. Cathcart Wason.
Mr. Watt.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.
Mr. Williamson.
Mr. M'Kinnon Wood.
Mr. Younger.

[*Monday, 29th April, 1907*]:—Standing Committees (Chairmen's Panel).—Mr. Stuart-Wortley *reported* from the Chairmen's Panel; That they had appointed Sir Thomas Esmonde to act as Chairman of Standing Committee A; Mr. John William Wilson to act as Chairman of Standing Committee B; Mr. Laurence Hardy to act as Chairman of Standing Committee C; and Mr. Eugene Wason to act as Chairman of the Standing Committee on Scottish Bills.

[*Tuesday, 18th June, 1907*]:—Sir William Bampton Gurdon *reported* from the Committee; That they had discharged the following Member from the Standing Committee on Scottish Bills (added in respect of the Small Landholders (Scotland) Bill): Lord Willoughby de Eresby; and had appointed in substitution (in respect of the Small Landholders (Scotland) Bill): Mr. Starkey.

[*Monday, 22nd July, 1907*]:—Sheriff Courts (Scotland) Bill,—read a second time, and committed to a Standing Committee.

[Tuesday, 23rd July, 1907] :—

MEMORANDUM.

Mr. Speaker being of opinion that the Sheriff Courts (Scotland) Bill is a Bill relating exclusively to Scotland, the Bill will be considered by the Standing Committee on Scottish Bills.

Standing Committees (Chairmen's Panel),—Mr. Stuart Wortley *reported* from the Chairmen's Panel; That they had discharged Mr. Eugene Wason from being Chairman of the Standing Committee on Scottish Bills; That they had discharged Sir William Holland from being Chairman of Standing Committee A, and had appointed him to act as Chairman of the Standing Committee on Scottish Bills in place of Mr. Eugene Wason; That they had discharged Mr. Stuart Wortley from being Chairman of Standing Committee C, and had appointed Mr. John William Wilson to act as Chairman of the said Committee C in his place, such discharge and appointment to take effect at the conclusion of the proceedings on the Small Holdings and Allotments Bill.

[Wednesday, 31st July, 1907] :—Selection (Standing Committees),—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had added to the Standing Committee on Scottish Bills the following Fifteen Members (in respect of the Sheriff Courts (Scotland) Bill): Sir Edward Boyle, Mr. Barrie, Mr. Remnant, Mr. Charles Craig, Sir Samuel Scott, Mr. Nield, Mr. Staveley-Hill, Sir Henry Kimber, Mr. Hills, Mr. Thomas Frederick Richards, Mr. John Ward, Sir Randal Cremer, Mr. Hugh Law, Mr. McKillop, and Mr. Trevelyan.

[Friday, 2nd August, 1907] :—Selection (Standing Committees),—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from the Standing Committee on Scottish Bills (added in respect of the Land Values (Scotland) Bill); Sir Randal Cremer; and had appointed in substitution (in respect of the Land Values (Scotland) Bill): Mr. Nicholls.

Sir William Brampton Gurdon further *reported* from the Committee; That they had discharged the following Members from the Standing Committee on Scottish Bills (added in respect of the Sheriff Courts (Scotland) Bill): Mr. Thomas Frederick Richards, Mr. Hugh Law, and Sir Randal Cremer; and had appointed in substitution (in respect of the Sheriff Courts (Scotland) Bill): Mr. Curran, Mr. John O'Connor, and Mr. Nicholls.

[Tuesday, 6th August, 1907] :—Selection (Standing Committees),—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from the Standing Committee on Scottish Bills (added in respect of the Land Values (Scotland) and of the Sheriff Courts (Scotland) Bills): Mr. Charles Craig; and had appointed in substitution (in respect of the Land Values (Scotland) and of the Sheriff Courts (Scotland) Bills): Mr. William Moore.

[Wednesday, 14th August, 1907] :—Selection (Standing Committees),—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from the Standing Committee on Scottish Bills (added in respect of the Sheriff Courts (Scotland) Bill): Sir Samuel Scott; and had appointed in substitution (in respect of the Sheriff Courts (Scotland) Bill): Mr. Gibbs.

[Thursday, 15th August, 1907] :—Standing Committee on Scottish Bills,—*Ordered*, That the Standing Committee on Scottish Bills have leave to sit To-morrow during the sitting of the House.—(*The Lord Advocate.*)

R E P O R T.

THE STANDING COMMITTEE ON SCOTTISH BILLS to whom the SHERIFF
COURTS (SCOTLAND) BILL was referred;—Have gone through the Bill, and made
Amendments thereunto.

19th August, 1907.

STANDING COMMITTEE ON SCOTTISH BILLS.

Thursday, 15th August, 1907.

MEMBERS PRESENT :

Mr. JOHN WILSON (Durham) in the Chair.

The Lord Advocate.	Mr. Molteno.
Mr. Ainsworth.	Mr. Moore.
Mr. Hugh Barrie.	Mr. Nicholls.
Mr. Buchanan.	Mr. Nield.
Mr. Cleland.	Mr. John O'Connor.
Sir Henry Craik.	Mr. Charles Price.
Mr. Curran.	Sir Robert Pullar.
Mr. Arthur Dewar.	Mr. Sinclair.
The Master of Elibank.	Mr. Smeaton.
Mr. Erskine.	Mr. Halley Stewart.
Mr. Esslemon ^t .	Mr. Solicitor-General for Scotland.
Mr. Munro Ferguson.	Mr. Sutherland.
Mr. Findlay.	Mr. John Ward.
Mr. Leicester Harmsworth.	Captain Waring.
Sir John Jardine.	Mr. Weir.
Mr. Laidlaw.	Mr. Dundas White.
Mr. Murray Macdonald.	Mr. Wilkie.
Mr. M'Callum.	Mr. M'Kinnon Wood.
Mr. M'Crae.	Mr. Younger.

SHERIFF COURTS (SCOTLAND) BILL.

Clause 1.

Motion made, "That the Committee do now adjourn"—(*Mr. Moore*).—Question put, "That the Committee do now adjourn."—The Committee divided :

Ayes, 4.

Mr. Hugh Barrie.
Mr. Moore.
Mr. Nield.
Mr. Wilkie.

Noes, 30.

The Lord Advocate.
Mr. Ainsworth.
Mr. Cleland.
Sir Henry Craik.
Mr. Curran.
Mr. Arthur Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Munro Ferguson.
Mr. Findlay.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Laidlaw.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Mr. Nicholls.
Mr. John O'Connor.
Mr. Charles Price.
Sir Robert Pullar.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Captain Waring.
Mr. Weir.
Mr. Dundas White.
Mr. Younger.

Clauses 1 and 2, *agreed to*.

Clause 3.

Amendment made, in page 2, line 7, by leaving out the words "means and"—(*The Lord Advocate*).

Another Amendment made, in page 2, line 8, by leaving out all the words from the word "applications" to the word "prescribed," in line 11, both inclusive—(*The Lord Advocate*).

Another Amendment made, in page 2, line 12, by leaving out the words "claims (other than claims" and inserting the words "Actions (except applications"—(*The Lord Advocate*)—instead thereof.

Motion made, and Question, "That the Committee do now adjourn."—(*The Lord Advocate*),—put, and *agreed to*.

[Adjourned till to-morrow, at two o'clock.

Friday, 16th August, 1907.

MEMBERS PRESENT:

Mr. JOHN WILSON (Durham) in the Chair.

The Lord Advocate.	Mr. Moore.
Mr. Ainsworth.	Mr. Nield.
Mr. Barnes.	Mr. John O'Connor.
Mr. Cleland.	Mr. Charles Price.
Sir Henry Craik.	Sir Robert Pullar.
Mr. Curran.	Mr. Sinclair.
The Master of Elibank.	Mr. Smeaton.
Mr. Esslemont.	Mr. Staveley-Hill.
Mr. Munro Ferguson.	Mr. Halley Stewart.
Mr. George Gibbs.	Mr. Solicitor-General for Scotland.
Mr. Leicester Harmsworth.	Mr. Sutherland.
Mr. John Henderson.	Mr. John Ward.
Mr. Hills.	Captain Waring.
Mr. Lamont.	Mr. Weir.
Mr. M'Callum.	Mr. Dundas White.
Mr. M'Crae.	Mr. Wilkie.
Mr. Molteno.	

SHERIFF COURTS (SCOTLAND) BILL.

Clause 3, further considered.

Motion made, "That the Committee do now adjourn"—(*Mr. Moore*).

Question put, "That the Committee do now adjourn."—The Committee divided :

Ayes, 2.

Mr. Hills.
Mr. Moore.

Noes 28.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Cleland.
Mr. Curran.
The Master of Elibank.
Mr. Esslemont.
Mr. George Gibbs.
Mr. John Henderson.
Mr. Lamont.
Mr. M'Callum.
Mr. M'Crae.
Mr. Molteno.
Mr. Nield.
Mr. John O'Connor.
Mr. Charles Price.
Sir Robert Pullar.
Mr. Sinclair.
Mr. Smeaton.
Mr. Staveley-Hill.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Mr. John Ward.
Captain Waring.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.

Another Amendment made, in page 2, line 13, after the word "Act," by inserting the words "and actions with conclusions ad factum praestandum"—(*The Lord Advocate*).

Another Amendment made.

Another Amendment made, in page 2, line 16, by leaving out all the words from the word "any" to the word "cause," in line 19, both inclusive, and inserting the words :

"(2) Actions of whatever kind (except applications under the Workmen's Com-

pensation Act and actions under the Small Debt Acts), notwithstanding that the value may exceed fifty pounds, in which the parties consent to the action being treated as a summary cause”

—(*The Lord Advocate*)—instead thereof.

Another Amendment made, in page 2, line 26, by leaving out Subsection (1) —(*The Lord Advocate*).

Another Amendment made, in page 2, line 30, by adding at the end of the Clause the words :

- “(m) ‘Workmen’s Compensation Act’ means The Workmen’s Compensation Act, 1906, and any Acts explaining or amending the same ;
- (n) ‘Pursuer’ means and includes any person making a claim or demand, or seeking any warrant or order competent in the sheriff court ;
- (o) ‘Defender’ means and includes any person who is required to be called in any action ;
- (p) ‘Summary application’ means and includes all applications of a summary nature brought under the common law jurisdiction of the sheriff, and all applications, whether by appeal or otherwise, brought under any Act of Parliament which provides, or, according to any practice in the sheriff court which allows that the same shall be disposed of in a summary manner, but which does not more particularly define in what form the same shall be heard, tried, and determined”

—(*The Lord Advocate*).

Clause, as amended, *agreed to*.

Clause 4.

Amendments made.

Clause, as amended, *agreed to*.

Clause 5.

An Amendment made.

Another Amendment proposed, in page 3, line 19, to leave out the words “or of separation and aliment”—(*Mr. Nield*).—Question put, “That the words proposed to be left out stand part of the Clause.”—The Committee divided :

Ayes, 22.

Noes, 3.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Cleland.
Mr. Curran.
Mr. John Henderson.
Mr. Hills.
Mr. Lamont.
Mr. M’Callum.
Mr. M’Crae.
Mr. Molteno.
Mr. John O’Connor.
Mr. Charles Price.
Sir Robert Pullar.

Mr. Moore.
Mr. Nield.
Mr. Staveley-Hill.

Ayes—*continued*.

Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Mr. John Ward.
 Captain Waring.
 Mr. Weir
 Mr. Dundas White.
 Mr. Wilkie.

Another Amendment made.

Another Amendment made, in page 3, line 29, after the word “reduction,” by inserting the words “including all actions of declarator of irritancy and removing, whether at the instance of a superior against a vassal or of a landlord against a tenant”—(*The Lord Advocate*).

Another Amendment made, in page 3, line 30, after the word “charges,” by inserting the words “or threatened charges upon the decrees of Court granted by the sheriff or”—(*The Lord Advocate*).

Other Amendments made.

Another Amendment proposed, in page 4, line 7, to leave out the words “one thousand,” and insert the words “five hundred”—(*Mr. Nield*)—instead thereof.—Question, “That the words ‘one thousand’ stand part of the Clause,”—put, and *agreed to*.

Other Amendments made.

Clause, as amended, *agreed to*.

Clause 6.

Amendment made, in page 4, line 18, by leaving out all the words from the word “court” to the word “sheriffdom,” in line 20, inclusive, and inserting the words “may be brought within the jurisdiction of the sheriff”—(*The Lord Advocate*)—instead thereof.

Another Amendment proposed, in page 4, line 22, to leave out all the words from the word “the” to the word “days,” in line 25, and insert the words “jurisdiction or having resided there for at least forty days immediately prior to the raising of the action has ceased to reside there for less than forty days and whose present residence in Scotland is unknown”—(*The Lord Advocate*)—instead thereof.—Question, “That the words proposed to be left out stand part of the Clause,”—put, and *negatived*.

Question proposed, “That those words be there inserted.”

Amendment proposed to the proposed Amendment, to leave out all the words from the word “jurisdiction” to the end of the proposed Amendment—(*Mr. Moore*).—Question, “That the words proposed to be left out stand part of the proposed Amendment”—put, and *agreed to*.

Question, “That those words be there inserted,”—put, and *agreed to*.

Other Amendments made.

Another Amendment made, in page 4, line 33, by leaving out all the words from the first word “the,” down to the end of the subsection, and inserting the word “jurisdiction”—(*The Lord Advocate*)—instead thereof.

Other Amendments made.

Clause, as amended, *agreed to*.

[Adjourned till Monday next at 11 o'clock.]

STANDING COMMITTEE ON SCOTTISH BILLS.

Monday, 19th August, 1907.

MEMBERS PRESENT:

Mr. JOHN WILSON (Durham) in the Chair.

The Lord Advocate.	Mr. Menzies.
Mr. Ainsworth.	Mr. Nicholls.
Mr. Robert Balfour.	Mr. Nield.
Mr. Cleland.	Mr. Charles Price.
The Master of Elibank.	Sir Robert Pullar.
Mr. Erskine.	Mr. Sinclair.
Mr. Esslemont.	Mr. Solicitor-General for Scotland.
Mr. Munro Ferguson.	Mr. Sutherland.
Mr. Findlay.	Mr. Weir.
Sir Henry Kimber.	Mr. Dundas White.
Mr. Murray Macdonald.	Mr. Younger.
Mr. M'Crae.	

SHERIFF COURTS (SCOTLAND) BILL.

Clause 7.

An Amendment made, in page 5, line 21, after the word "value," by inserting the words "exclusive of interest and expenses"—(*The Lord Advocate*).

Another Amendment made, in page 5, line 24, by adding at the end of the Clause the words :

"Provided that in actions ad factum præstandum, where the value of the cause is not disclosed, the same shall be deemed to exceed fifty pounds, unless in the course of the cause the sheriff shall determine, as after provided, that the value thereof is less than fifty pounds. Provided also that nothing herein contained shall affect any right of appeal competent under any Act of Parliament in force for the time being"

—(*The Lord Advocate*).

Clause, as amended, *agreed to*.

Clause 8.

An Amendment made, in page 5, line 34, by leaving out the words "such causes," and inserting the words "a summary cause"—(*The Lord Advocate*)—instead thereof.

Another Amendment made, in page 5, line 36, after the word "may," by inserting the words "then or within seven days from the date of his interlocutor"—(*The Lord Advocate*).

Another Amendment made.

Clause, as amended, *agreed to*.

Clause 9.

An Amendment made, in page 6, line 2, by adding at the end of the Clause the words "but not otherwise"—(*Mr. Nield*).

Clause, as amended, *agreed to*.

Clause 10, *agreed to*.

Clause 11.

An Amendment made.

Clause, as amended, *agreed to*.

Clause 12 *agreed to*.

Clause 13.

An Amendment made in page 6, line 29, by leaving out the word "month," and inserting the words "period. In this paragraph 'sheriff' does not include 'sheriff substitute'"—(*The Lord Advocate*)—instead thereof.

Clause, as amended, *agreed to*.

Clauses 14—17, *agreed to*.

Clause 18.

An Amendment made.

Another Amendment made in page 8, line 19, after the word "Act," by inserting the words "provided that the above provisions shall not extend to the sheriffs of the Lothians and Peebles and of Lanarkshire"—(*The Lord Advocate*).

Clause, as amended, *agreed to*.

Clause 19.

An Amendment made, in page 9, lines 4 and 5, by leaving out the words "provide another fit person as substitute to act," and inserting the words "appoint another person qualified as in section twelve hereof to act as substitute"—(*The Lord Advocate*)—instead thereof.

Clause, as amended, *agreed to*.

Clause 20.

Amendments made.

Clause, as amended, *agreed to*.

Clauses 21—25, *agreed to*.

Clause 26.

An Amendment made in page 11, line 17, by leaving out the words "Summary causes, and, by leave of the sheriff"—(*The Lord Advocate*).

Clause, as amended, *agreed to*.

Clause 27.

An Amendment made, in page 11, line 25, after the word "money," by inserting the words "other than a decree for expenses"—(*The Lord Advocate*).

Another Amendment made.

Clause, as amended, *agreed to*.

Clause 28.

An Amendment made, in page 28, line 36, by leaving out all the words from the word "Act" to the word "it" in line 37—(*The Lord Advocate*).

Other Amendments made.

Another Amendment made, in page 12, line 6, after the word "Appeal," by inserting the words :

"Provided that any exclusion or allowance of appeal competent under any Act of Parliament in force for the time being shall not be affected by this or the preceding section "

—(*The Lord Advocate*).

Clause, as amended, *agreed to*.

Clause 29.

An Amendment made, in page 12, line 10, by leaving out all the words from the word "appeals" to the word an "an" in line 12—(*The Lord Advocate*).

Another Amendment made.

Clause, as amended, *agreed to*.

Clause 30, *agreed to*.

Clause 31.

An Amendment made, in page 12, line 35, after the word "action," by inserting the words "raised in the sheriff court"—(*The Lord Advocate*).

Another Amendment made, in page 13, line 1, by leaving out the words "at the closing of the record," and inserting the words "so soon as proof has been allowed, or within six days thereafter"—(*The Lord Advocate*)—instead thereof.

Another Amendment made.

Clause, as amended, *agreed to*.

Clause 32.

Amendments made.

Another Amendment made, in page 14, line 12, by leaving out the word "Acts," and inserting the words "(Scotland) Act, 1856, or against whom a decree of cessio has been pronounced under The Debtors (Scotland) Act, 1880"—(*The Lord Advocate*)—instead thereof.

Clause, as amended, *agreed to*.

Clause 33.

An Amendment made.

Another Amendment made, in page 14, line 28, by leaving out the words "of removal," and inserting the words "for ejection."—(*The Lord Advocate*)—instead thereof.

Clause, as amended, *agreed to*.

Clause 34.

An Amendment made.

Another Amendment made, in page 15, line 4, by leaving out all the words from the word "him," to the end of the Clause—(*The Lord Advocate*).

Clause, as amended, *agreed to*.

Clause 35.

An Amendment made, in page 15, line 6, by leaving out all the words from the word "houses," to the word "Providing" in line 18, and inserting the words, "with or without land attached, not exceeding two acres in extent, lands not exceeding two acres in extent let without houses, mills, fishings, shootings, and all other heritable subjects (excepting land exceeding two acres in extent) are let for a year or more, notice of termination of tenancy shall be given in writing to the tenant by or on behalf of the proprietor or to the proprietor by or on behalf of the tenant"—(*The Lord Advocate*)—instead thereof.

Another Amendment made.

Another Amendment made, in page 15, line 28, by leaving out all the words from the word "Martinmas," to the end of the Clause—(*The Lord Advocate*).

Clause, as amended, *agreed to*.

Clauses 36 and 37 *disagreed to*.

Clause 38.

An Amendment made, in page 16, line 20, by leaving out all the words from the word "period," to the end of the Clause—(*The Lord Advocate*).

Clause, as amended, *agreed to*.

Clause 39.

An Amendment made, in page 16, line 31, by leaving out all the words from the beginning of the Clause to the word "shall," in line 32, and inserting the words :

"Subject to the provisions of any Act of Parliament in force after the passing of this Act the procedure in all civil causes"

—(*The Lord Advocate*)—instead thereof.

Clause, as amended, *agreed to*.

Clause 40.

An Amendment made, in page 16, line 36, after the word "regulations," by inserting the words "not inconsistent with the provisions of this Act"—(*The Lord Advocate*).

Other Amendments made.

Another Amendment made, in page 17, line 3, by leaving out all the words from the word "and," to the word "Provided," in line 5, and inserting the words "for altering, amending, or adding to the rules of procedure in the First Schedule hereto"—(*The Lord Advocate*)—instead thereof.

Clause, as amended, *agreed to*.

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Clause 41.

An Amendment made, in page 17, line 19, by leaving out all the words from the word "once," to the word "and," in line 20, and inserting the words "at least in each year"—(*The Lord Advocate*)—instead thereof.

Other Amendments made.

Another Amendment made, in page 17, line 34, after the word "allowed," by inserting the words "in this section 'sheriff' does not include 'sheriff substitute'"—(*The Lord Advocate*).

Clause, as amended, *agreed to*.

Clauses 42 and 43, *agreed to*.

Clause 44.

An Amendment made, in page 18, line 8, by leaving out all the words from the word "agent," to the end of the Clause—(*The Lord Advocate*).

Clause, as amended, *agreed to*.

Clause 45.

An Amendment made, in page 18, line 11, by leaving out all the words from the word "of," to the end of the Clause, and inserting the words:

"Section three (except subsections (d), (h), (i), (k), (l), (m), and (p), section four, subsection (2) of section five, so far as relating to claims for aliment, section six (except subsection (e), and section forty-nine hereof, and the rules ten, eleven, twelve, thirteen, fourteen, fifteen, seventeen, nineteen, twenty-one, twenty-six, fifty, fifty-five, sixty, sixty-three, seventy, seventy-nine, eighty, one hundred and twenty-six, one hundred and twenty-seven, one hundred and twenty-eight, one hundred and twenty-nine, one hundred and fifty-one, in the First Schedule hereto, shall, so far as appropriate, apply to causes under the Small Debt Acts"

—(*The Lord Advocate*)—instead thereof.

Clause, as amended, *agreed to*.

Clause 46.

An Amendment made, in page 18, line 20, after the word "shall," by inserting the word "not"—(*The Lord Advocate*).

Another Amendment made, in page 18, line 21, by adding at the end of the Clause the words "but such decrees shall be enforceable by imprisonment under the warrant for execution contained in Schedule B of The Small Debt Amendment (Scotland) Act, 1889"—(*The Lord Advocate*).

Clause, as amended, *agreed to*.

Clause 47.

An Amendment made, in page 18, line 23, after the word "Acts," by inserting the words "in the form as nearly as may be of Schedules B or C of The Small Debt Amendment (Scotland) Act, 1889"—(*The Lord Advocate*).

Clause, as amended, *agreed to*.

Clauses 48—50 *agreed to*.

New Clause ("Summary applications") brought up and read the first time as follows :

"In summary applications (where a hearing is necessary) the sheriff shall appoint the application to be heard at a diet to be fixed by him, and at that or any subsequent diet (without record of evidence unless the sheriff shall order a record) shall summarily dispose of the matter and give his judgment in writing: Provided that wherever in any Act of Parliament an application is directed to be heard, tried, and determined summarily or in the manner provided by section fifty-two of The Sheriff Courts (Scotland) Act, 1876, such direction shall be read and construed as if it referred to this section of this Act: Provided also that nothing contained in this Act shall affect any right of appeal provided by any Act of Parliament under which a summary application is brought"

—(*The Lord Advocate*).

Clause read a second time and added to the Bill.

Another New Clause ("Sheriff to state questions for jury") brought up and read the first time as follows :

"Where jury trial has been ordered the sheriff shall after hearing parties, if he shall think that necessary or desirable, issue an interlocutor setting forth the question or questions of fact to be at the trial proposed to the jury and fixing a time and place for the trial, being not sooner than fourteen days from the date of the interlocutor"

—(*The Lord Advocate*).

Clause read a second time and added to the Bill.

Another New Clause ("Remuneration of jurors") brought up and read the first time as follows :

"Where jury trial has been ordered the party moving for it shall, on each day the trial proceeds, before the proceedings commence, deposit with the sheriff clerk the sum of three pounds ten shillings, which deposit shall form part of the expenses of the cause; failing any such deposit being made, the sheriff may dismiss the cause. Out of said fund the sheriff clerk shall pay to each juror a fee of ten shillings for each day on which he is empanelled. When a jury trial is not proceeded with, said deposit shall be returned to the depositor"

—(*The Lord Advocate*).

Clause read a second time and added to the Bill.

Another new Clause ("Postal charge") brought up and read the first time as follows :

"Where a charge is necessary upon a decree for payment of money granted in the small debt court and the place of execution of the charge is more than twelve miles distant from the seat of the court where such decree was granted a charge may be given by post in the manner prescribed by The Citation Amendment (Scotland) Act, 1882"

—(*The Lord Advocate*).

Clause read a second time and added to the Bill.

Schedule 1, *disagreed to*.

Schedule 2.

An Amendment made, in page 44, column 3, line 21, at end, by inserting the

words “as also in Section 33 the words ‘and all actions of separation a mensa et thoro.’”—(*The Lord Advocate*).

Other Amendments made.

Schedule, as amended, *agreed to*.

New Schedule 1, brought up and read the first time as follows :

“First Schedule.

Rules for regulating Procedure in the Ordinary Court.

Forms of Process.

- | | |
|------------------------|---|
| Initial writ | 1. Subject to the provisions of the Titles to Land Consolidation 5 (Scotland) Act, 1868, and the Conveyancing and Land Transfer (Scotland) Act, 1874, as regards service of heirs and completion of title, all actions shall be commenced by writ as nearly as may be in the form A hereto annexed. |
| 20 | 2. Where the claim or demand is founded upon a stated account a copy of the account shall be endorsed upon or attached to the initial writ and served along with it. |
| Writ to be signed. | 3. The writ shall be signed by the pursuer or complainer or by his agent, and the name and address of pursuer's agent (if any) shall be upon the back of every service copy. |
| Form of first warrant. | 4. The warrant of citation shall be as nearly as may be—
(a) In summary causes and summary removings, and also in summary applications when citation is necessary and in cases under the Workmen's Compensation Act, in the form B hereto annexed.
(b) In all other causes, in the form C hereto annexed. |
| Induciæ of citation. | 5. Actions shall proceed upon seven days' warning or induciæ when the defender is within Scotland, or fourteen days when he is in Orkney or Shetland or in any other island within Scotland or is furth of Scotland. |
| Special induciæ. | 6. The Sheriff may shorten or may extend the induciæ, but not so as to be in any case less than forty-eight hours. |

Citation.

- | | |
|--|---|
| Signature of warrants. | 7. Warrants may be signed by the sheriff-clerk, but any warrant may be signed by the sheriff or sheriff-substitute, and must be so signed if it 30 contains an order for shortening or extending the induciæ or for interim, interdict, sequestration, or other order not being an order for citation or warrant to arrest. In actions against persons furth of Scotland the warrant may authorise service edictally. |
| Mode of citation. | 8. Citation may be in the form D hereto annexed, and the form of 35 execution of citation, which shall be appended to or endorsed upon the initial writ, may be in the form E hereto annexed. |
| Attestation of officer's execution of citation. | 9. If a warrant is executed by an officer, one witness shall be sufficient for the execution of citation and the execution shall be signed by the officer and the witness, and shall specify whether the citation was personal, or if otherwise the mode of citation. |
| Endorsation of warrant by sheriff clerk of defender's residence not necessary. | 10. Any warrant of citation or any warrant or precept of arrestment proceeding upon a depending action or liquid document of debt may in any competent manner be lawfully executed within the jurisdiction of any Sheriff without indorsation by the sheriff-clerk of that jurisdiction, and if executed by an officer, may be so executed by an officer of the Court which granted the warrant or precept, or by an officer of the jurisdiction within which it is to be executed. |

Citing of corporation.

11. A corporation or association, or a firm nominate or descriptive, or a board corporate or unincorporate, may be sued and summary diligence upon a sheriff court decree, or a decree of registration executed against them under their nominate or descriptive name alone, and may be competently cited at their principal place of business (which term shall include the office or place of business of the clerk or secretary of any board or corporation), or where the principal place of business is outwith the jurisdiction, at any place of business within the jurisdiction

Service of new.

12. If it appear to the sheriff that there has been any irregularity in service upon a defender who has not appeared, the sheriff may authorise the pursuer or complainer to make service of new upon such conditions as to the sheriff shall seem just.

Defender appearing barred objecting to citation.

13. A party who appears may not state any objection to the regularity of the service upon himself, and his appearance shall be deemed to remedy any defect in the service, unless where jurisdiction has been constituted by citation or by arrestment *ad fundandum jurisdictionem*.

Citation of a minor.

14. Service in ordinary form on a minor and on his father, as curator-at-law, or upon a minor and his tutors and curators if known to pursuer, or, if they are not known, upon the minor himself in ordinary form, and his tutors and curators edictally, shall be good and sufficient service on the minor for every purpose of law

Edictal citation.

15. It shall be competent to execute edictally any warrant of citation granted or charge on an extracted decree pronounced by a sheriff against any person furth of Scotland, by delivery of a copy thereof at the office of the keeper of edictal citations at Edinburgh according to the mode established in regard to the execution edictally of citations and charges on warrants of the Court of Session; or by sending to such keeper in a registered post-letter a certified copy of such warrant or charge, of which copy the keeper shall acknowledge receipt. Every citation or charge so executed edictally shall be recorded in the record of edictal citations in Edinburgh in a separate record of edictal citations or charges against persons furth of Scotland cited or charged upon warrants proceeding from any sheriff court. Where the party cited or charged has a known residence or place of business in England or Ireland a copy of the writ and citation or of the decree and charge on fourteen days' *induciæ* shall be posted in a registered letter to the party at such address, and the execution shall express that this has been done. The sheriff-clerk shall in all warrants to cite persons furth of Scotland insert a warrant to cite edictally, and along with the execution of edictal citation pursuer's agent shall lodge a certificate of such postal intimation and the post office registered letter receipt.

Custody of Process.

Custody of process.

16. Every initial writ shall after tabling remain in the custody of the sheriff-clerk, unless the sheriff shall grant a special order to the contrary. A process may be borrowed only by an agent entitled to practise in the jurisdiction, or by his duly authorised clerk, for whom he shall be responsible.

Lost documents may be replaced by copies.

17. When any number of process is lost or destroyed, a copy thereof, authenticated in such manner as the sheriff may require, may be substituted, and shall, for the purposes of the action, be equivalent to the original.

Interlocutor sheets, &c., to be lodged by pursuer.

18. In a defended action the pursuer shall lodge with the sheriff-clerk principal and duplicate interlocutor sheets and a principal and borrowing inventory of process; and the sheriff-clerk shall endorse upon all pleadings the date when the same are lodged. The principal interlocutor sheets and the borrowing inventory shall remain in the custody of the sheriff-clerk.

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Transfer of Causes.

Transfer of cause to more convenient sheriffdom where several defenders in different sheriffdoms 19. Where an action in which there are two or more defenders has been brought in the court of the domicile of one of them, the sheriff may transfer the cause to any other court which has jurisdiction over any of the defenders, if in his opinion it is expedient that this should be done, and an action so transferred shall proceed in all respects as if it had been originally brought in that court.

Sheriff on cause shown may remit to another sheriffdom. 20. The sheriff may upon sufficient cause, by interlocutor stating his reasons, remit any cause to another sheriffdom, and such interlocutor when issued by a sheriff-substitute, shall by leave of the sheriff-substitute, and within seven days only, be subject to review by the sheriff, but shall not be further subject to review.

Where plea of no jurisdiction stated, cause may be remitted to proper sheriffdom. 21. Where a plea of no jurisdiction is sustained, the sheriff may, if he think proper, and upon such conditions as to costs as he may think fit, remit the cause to the sheriff before whom it appears to him it ought to have been brought, and it shall thereafter proceed in all respects as if it had been originally there brought. When such remit is made by the sheriff-substitute, the interlocutor remitting shall by leave of the sheriff-substitute and within seven days only be subject to review by the sheriff but shall not be further subject to review.

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Appearance.

Notice of appearance. 22. If a defender intend to state a defence he shall (except in a summary cause) before the expiry of the induciæ, lodge with the sheriff-clerk a notice of appearance in the following terms :—

[Place and date]—C. D., [design him] defender, intends to defend the action against him [and others] at the instance of A. B. [design him].

A. B. *Defender*,
or X. Y. [add address],
Defender's Agent.

Undefended Causes.

In undefended cause decree may be granted at any time. after expiry of induciæ. 23. Where a defender does not answer or lodge a notice of appearance the sheriff may at any time, after the expiry of the induciæ, upon written craving to that effect being endorsed upon the initial writ by the pursuer or his agent decern in terms of the claim or demand as set forth in the initial writ, and for expenses as the same may be certified by a note endorsed upon the initial writ by the auditor of court, subject to any restriction endorsed upon the writ or set forth in a minute by the pursuer or his agent.

Extract of decree in absence in seven days. 24. The sheriff-clerk may issue an extract of such decree after the expiry of seven days from the date of the sheriff's judgment.

Finality of decree in absence. 25. A decree pronounced in absence, and which has not been recalled or brought under review by suspension, where suspension is competent, or by reduction, shall become final, and be entitled to all the privileges of a decree in foro—

(a) In six months from its date, or from the date of charge under it where the service of the writ or of the charge has been personal ;
(b) In any event after the lapse of twenty years from its date.

Amendment of writ in undefended action. 26. In an undefended action the sheriff may allow the pursuer or his agent to amend any error or defect in the initial writ, and may, if he see fit, order the amended writ to be served upon the defender, and may allow him to appear within such time as he may think proper. But the expense occasioned by such amendment shall not be chargeable against the defender, and such amendment shall not have the effect of validating diligence used on the dependence of the action so as to prejudice creditors of the defender, but such amendment shall be operative to the effect of obviating objections to such diligence when stated by the defender himself, or by any persons representing him by a title, or in

right of a debt contracted by him subsequent to the using of such diligence, and any diligence which was competent upon the original writ shall be competent upon the amended writ.

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Reponing.

Defender may be reponed against decree in absence.

27. At any time before implement of a decree in absence, the defender may apply to be reponed by lodging with the sheriff-clerk and serving upon pursuer a note setting forth his proposed defence, and his explanation of his failure to appear.

Upon consignment.

28. Along with this reponing note the defender shall consign the sum of two pounds in the hands of the sheriff-clerk.

Sheriff may recall the decree in absence.

29. Upon such consignment the sheriff, if satisfied with the defender's explanation, may recall the decree so far as not implemented, whereupon the action shall proceed in all respects as if the defender had appeared.

Or refuse to recall.

30. If the sheriff is not satisfied with the defender's explanations he may refuse the reponing note.

Pursuer entitled to consign money.

31. In either case the pursuer shall be entitled to uplift the consigned money.

Reponing note to operate as sist of diligence. Judgment upon a reponing note final.

32. A reponing note, when duly lodged and intimated to the pursuer or to his agent, shall operate as a sist of diligence.

33. Any interlocutor or order upon a reponing note, or recalling, or incidental to the recall of a decree in absence, shall be final and not subject to review.

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Defended Causes.

Defended cause to be tabled.

34. Where appearance has been entered the sheriff-clerk shall enrol the cause for tabling on the first court day occurring after the expiry of the induciæ.

If not tabled to drop from roll.

35. An action which has not been tabled, and in which protestation has not been craved, shall drop from the roll, but within three months the sheriff may direct it to be again enrolled for tabling under such conditions as to notice, or re-service, or expenses, or otherwise as he shall think fit.

If case not tabled defender may crave protestation.

36. If the pursuer do not then table the cause, the defender or his agent, upon producing the service copy of the writ, may crave protestation for not insisting, which the sheriff may grant, and may modify the amount of protestation money payable to defender.

Extract of protestation.

37. Protestation shall not be extracted till the expiry of seven free days from the date of its granting, except where arrestments have been used, in which case extract may be given out after the lapse of forty-eight hours

Effect of protestation.

38. Upon protestation being extracted, the instance shall fall.

Recall of protestation.

39. Before extract protestation may be recalled, and the pursuer may be allowed to proceed with his action upon making payment to the defender of the amount of the protestation money, and upon such other conditions as to the sheriff shall seem just.

Sheriff may direct any cause to be tried as a summary cause.

40. When any defended action (other than a claim under the Workmen's Compensation Act) has been tabled, the sheriff of consent of parties, notwithstanding that its value exceeds fifty pounds, may, at any stage direct that it be tried as a summary cause, and his decision as to this shall be final.

Procedure in a summary cause.

41. In a summary cause the sheriff may order a condescence and defences if he thinks fit, or may make or certify a note upon the writ or separately of the pleas of parties and appoint a diet for the trial of the cause, or may order such other procedure as the circumstances seem to him to require.

In non-summary cause condescendence within three days of tabling. Defences within six days

Enrolment for adjustment.

225

Certified copy writ warrant for arrestment.

230

Form of defences.

Documents founded on to be produced before record closed.

Diligence for recovery of such documents.

Revival may be ordered.

250

Documents may be challenged on exception.

Caution may be ordered when action of reduction competent.

Closing record.

Alterations to be initialed by sheriff.

Preliminary pleas to be first disposed of.

Counter claim may be stated in defences.

Failure of either party to appear or to implement orders of court entitles other party to decree.

42. In all other defended causes the pursuer shall at the tabling of the cause, or within three days thereafter, lodge a condescendence setting forth succinctly and in articulate articles the grounds of action and his pleas in law.

43. Within six days of the condescendence being lodged the defender shall lodge his defences.

44. The sheriff-clerk shall, upon defences being lodged, enrol the cause for an ordinary court day occurring not less than four days thereafter for adjustment. The adjustment shall not be adjourned more than once unless upon special cause shown.

45. In every defended action the pursuer shall, after defences have been lodged, and before the diet for adjustment, lodge in process a copy of the initial writ and warrant thereon certified by him or his agent, which may thereafter be borrowed by the agent of any party to the process, and such certified copy shall be sufficient warrant where competent to arrest on the dependence. Separate precepts of arrestment may be issued by the sheriff-clerk upon production to him of a writ containing pecuniary conclusions upon which a warrant of citation has been granted, or of a liquid document of debt.

46. Defences shall be in the form of articulate answers to the condescendence, having appended a note of defender's pleas, and where necessary a statement of facts founded on in defence which shall be set forth succinctly.

47. Each party shall, along with his pleadings, or at latest before the closing of the record, if required by any other party in the action or by the sheriff, lodge any documents founded upon in the pleadings, so far as the same are within his custody or power.

48. Where such documents are not produced by either party, or where they are in the hands of third parties, the sheriff may, on the motion of either party, grant commission and diligence for their recovery, and may on that account delay closing the record.

49. The sheriff may upon cause shown, or ex proprio motu, order a revisal of the pleadings, or may order pursuer to answer defender's separate statement of facts.

50. When a deed or writing is founded on by any party in a cause all objections thereto may be stated and maintained by way of exception, without the necessity of bringing a reduction thereof.

51. The sheriff may, where an objection is so stated and where an action of reduction would be competent, order the objector to find caution, or to make consignment as he shall direct.

52. When the pleadings have been adjusted the sheriff shall close the record.

53. All alterations or additions made on the record shall be authenticated by the sheriff's initials.

54. If preliminary pleas have been stated the sheriff shall first dispose of them, unless he thinks that from their being connected with the merits, or on any other ground, they should be reserved till a future stage of the cause.

55. Where a defender pleads a counter claim it shall suffice that he state the same in his defences, and the sheriff may thereafter deal with it as if it had been stated in a substantive action, and may grant decree for it in whole or in part, or for the difference between it and the claim sued on.

56. In a defended action (including a jury cause) when any production or pleading has not been lodged or order implemented within the time required by statute or ordered by the sheriff or where in a defended action either party fails to appear by himself or his agent at any diet, or fails to make payment of any court dues or deposit, the sheriff may grant decree as craved, or of absolvitor, or may dismiss the action, with

expenses, but the sheriff may upon cause shown prorogate the time for lodging any production or pleading or implementing any order. If all parties fail to appear the sheriff shall, unless sufficient reason appear to the contrary, dismiss the action.

Agent failing to return process may be fined.

57. When an agent has borrowed a process, or any part thereof, and fails to return it for any diet at which it is required, the sheriff may impose upon such agent a fine not exceeding one pound, which shall be payable to the clerk of court for behoof of His Majesty's Exchequer, but an order so imposing a fine may, on cause shown, be recalled by the sheriff who granted it. Orders made under this section shall not be subject to review. For the purposes of this section every agent practising before his court shall be subject to the jurisdiction of the sheriff.

If probation renounced parties to sign minute.

58. If at the time of closing the record the parties renounce probation they shall sign a minute to that effect on the interlocutor sheet, and the sheriff may order the case to be debated then or at a subsequent diet.

Proof may be ordered.

59. If proof is necessary the sheriff shall (unless the cause has been ordered for jury trial), with the least possible delay, fix a date for taking the proof, and may limit the mode of proof.

Remit to person of skill.

60. The sheriff may remit to any person of skill, or other person, to report of any matter of fact; and, when such remit is made of consent of both parties, the report of such person shall be final and conclusive with respect to the matter of the remit. When such a remit is made, upon the motion of either party, the expense attending its execution shall in the first instance be paid by the party moving for it. When the remit is on joint motion, or by the sheriff *ex proprio motu*, the expense shall in the first instance be paid by the parties equally, unless the sheriff shall otherwise order.

Parties may by minute agree to cause being tried as small debt cause.

61. The parties to any action may lodge in process a minute, signed by themselves or their agents, agreeing to the cause being disposed of in the manner provided under the Small Debt Acts, whereupon the sheriff shall remit the action to his Small Debt Court roll, and the whole powers and provisions of the Small Debt Acts shall become applicable to the cause.

Diligence for recovery of documents.

62. At any time after a proof has been allowed, or an order made for jury trial, the sheriff, upon the motion of either party, may grant commission and diligence for the recovery of such documents as the sheriff shall deem relevant to the cause.

Evidence to lie in retentis.

63. Evidence in danger of being lost may be taken to lie in retentis, and, if satisfied that it is desirable so to do, the sheriff may, upon the motion of either party at any time, either take himself, or grant authority to a commissioner to take, such evidence.

Reference to oath.

64. When any person desires to refer to the oath of his adversary, he shall lodge a minute to that effect, signed by himself or his agent. If the party to whose oath reference has been made fail to appear at the diet for taking his deposition, the sheriff may hold him as confessed, and decern accordingly.

Recording of evidence.

65. Evidence in a cause or a deposition, whether before the sheriff or a commissioner, may be taken down by the sheriff or commissioner, or by a clerk or shorthand writer nominated by the sheriff or commissioner, to whom the oath *de fidele administratione* shall be administered and evidence may be recorded in narrative form or by question and answer as the sheriff or commissioner shall direct, and the extended notes of evidence certified by such clerks or shorthand writer shall be the notes of the oral evidence in the cause. The sheriff or commissioner may, if he think fit, dictate to the clerk or shorthand writer what he is to record.

Sheriff may amend record of evidence.

66. If the correctness of the notes of evidence or of a deposition be questioned, the sheriff may satisfy himself in regard thereto by the examination of witnesses or otherwise, and may amend the record of evidence or a deposition.

- Shorthand writer's fees. 67. When a shorthand writer is so employed to record evidence, he shall in the first instance be paid, as regards commissions by the party moving for the commission, and as regards proofs or jury trials by the parties equally. The agents of parties shall be personally liable for the shorthand writer's fees. And it shall be competent for the sheriff to make an order directing payment to be made.
- 340
- Production of documents may be ordered. 68. The sheriff may order production of documents at any stage of the cause, and the sheriff may allow a party, at any time before judgment, to produce any document which he has failed to produce timeously, upon such conditions as to payment of expenses and allowing further proof as to the sheriff shall seem just.
- 345
- Proof to be taken continuously. 69. The proof shall be taken so far as possible continuously, but the sheriff may adjourn the diet from time to time.
- Evidence may be taken on commission. 70. The evidence of any witness or haver resident beyond the jurisdiction of the court or who although resident within the jurisdiction, resides at some place remote from the seat of the court, or who is by reason of illness, age, or infirmity unable to attend the diet of proof, or a jury trial, may be taken by commission in like manner as evidence to lie in retentis.
- Citation of witnesses. 71. A copy of an interlocutor certified by the sheriff clerk allowing a proof or fixing a diet for the trial of any action or for the examination of witnesses or havers, or fixing a date for a jury trial, shall be sufficient warrant for citation of witnesses or havers. If any witness or haver duly cited on an induciæ of at least forty-eight hours, and after having been tendered his travelling expenses if the same shall have been demanded fail to attend a diet, either before the sheriff or before his commissioner, such witness or haver may be ordained by the sheriff to forfeit and pay a penalty not exceeding forty shillings, unless a reasonable excuse be offered and sustained, and the sheriff may grant decree for said penalty in favour of the party on whose behalf said witness or haver was cited.
- 360
- 365
- Form of citation. 72. Witnesses and havers may be cited as nearly as may be in Form F hereto annexed, and the execution of citation shall be as nearly as may be in the Form G and an agent who cites a witness shall be personally liable for the fees of the witness.
- 370
- Second diligence against witness failing to attend. 73. It shall further be competent to the sheriff to grant second diligence (which shall be effectual in any sheriffdom within Scotland without endorsement) for compelling the attendance of said witness or haver under pain of arrest and imprisonment, until caution be found as the sheriff may require for his due attendances the expense whereof may in like manner be decerned for against the witness or haver.
- 375
- Objections taken in course of proof to be noted. 74. When the sheriff, or a commissioner, repels or sustains an objection taken in the course of a proof, the objection stated, and any answer made to it, shall, if desired by the objector, be shortly noted on the notes of evidence to the sheriff's or commissioner's dictation, but the examination of the witness shall nevertheless proceed. The sheriff or commissioner may, if he consider the objections of sufficient importance, direct the evidence objected to to be taken on a separate paper; but it shall not be competent during the course of a proof to submit to review any judgment pronounced upon the competency of the evidence.
- 385
- Appeal on questions of admissibility of evidence. 75. On the proof being declared closed, or within seven days thereafter, if the sheriff-substitute has not in the interval pronounced judgment, it shall be competent by leave of the sheriff-substitute to appeal to the sheriff upon objections to the admissibility of evidence taken during the course of the proof, and the sheriff shall, with or without a hearing, dispose of such appeal with the least possible delay, and if he think that evidence accepted should not have been allowed he may delete the same from the notes of evidence, and if he think that evidence has been improperly rejected he may appoint the same to be taken before the case is advised on its merits.
- 390
- 395

Appeal on
ground of con-
fidentiality.

76. If any person, whether a party to the cause or other person, plead before the sheriff-substitute confidentiality with reference to documentary or oral evidence, or, on pleas of alleged hypothec or otherwise, shall object to produce documents, the sheriff-substitute shall, on the notes of evidence, 400 minute his decision on such pleas, and any party in the cause or the party pleading confidentially by leave of the sheriff-substitute may, in open court, take an appeal to the sheriff, who shall, with or without a hearing and with the least possible delay, dispose of such appeal.

Proof to proceed
notwithstanding
such appeal.

77. Such incidental appeal shall not remove the cause from the sheriff-substitute, who may proceed with the cause as regards points not necessarily dependent upon the ruling so appealed against.

Parties to be
heard at close of
proof.

78. At the close of the proof, or at an adjourned diet, if for any reason the sheriff shall see fit to postpone the hearing, the sheriff shall hear the parties or their agents, and thereafter shall pronounce judgment with the 410 least possible delay.

Amendment of Pleadings.

Record may be
amended by
sheriff.

79. Upon the motion of either party the sheriff may, at any stage of the cause, and upon such conditions as to expenses reserve or otherwise as he shall deem proper, allow a record to be altered or amended to the 415 effect of determining the real question in controversy (including amendment of the instance and the initial writ and the adding of parties) notwithstanding that the conclusions of the action may thereby be enlarged or altered.

Effect of
amendment.

80 No such amendment shall have the effect of validating diligence used prior thereto on the dependence of the action so as to prejudice the rights of creditors of the defender interested in defeating such diligence, but such amendment shall be operative to the effect of obviating objections to such diligence when stated by the defender himself, or by any person representing him by a title, or in right of a debt contracted 425 by him subsequent to the execution of such diligence.

Abandonment.

Abandonment
of action.

81. A pursuer may at any stage of an action before an interlocutor granting absolvitor or dismissing the action has been pronounced offer to abandon his action by lodging a minute to that effect, signed by 430 himself or his agent, in which case, upon payment to defender of his expenses, the sheriff may dismiss the action, and pursuer may bring a new action if otherwise competent. If the pursuer fails, within fourteen days of the date of taxation, to pay the defender's expenses, the defender shall be entitled to decree of absolvitor, with expenses.

435

Judgment.

Sheriff to state
reasons for
judgment.

82. To all interlocutors, except those of a formal nature, the sheriff shall append a note setting forth the grounds upon which he has proceeded and in his final judgment on the merits he shall set forth his findings in fact and in law separately.

Date of judg-
ment to be date
of entry in
court books.

83. The sheriff may pronounce or sign any judgment or interlocutor when furth of his sheriffdom, but the date of every interlocutor shall be deemed to be the date upon which it is entered in the books of the court.

Clerical error in
judgment may
be corrected.

84. At any time before extract, or before the transmission of a process in which an appeal has been taken, the sheriff may correct any clerical or incidental error in his judgment.

Extract.

Time of extract.

85. Extract of any decree, interlocutor, or order of the sheriff (other than a decree in absence or a decree for expenses), if the same shall not 450 have been sooner appealed against, may be issued in a summary cause after the lapse of seven days, and in any other cause, after the lapse of

fourteen days from its date ; or at such earlier date as the sheriff shall allow extract.

Appeal.

Appeal from
the sheriff-
substitute.

86. A final judgment of the sheriff-substitute may if appeal be competent and unless otherwise provided be appealed to the sheriff or to the Court of Session at any time within three months of its date (but not later), if the same shall not sooner have been extracted or implemented. Any other appealable interlocutor of the sheriff-substitute may be

460
Form of Appeal.

87. An appeal shall be taken by the appellant or his agent dating and signing a note on the interlocutor sheet in the following terms :—

465 The pursuer [or defender or other party] appeals [to the sheriff] or [to the Division of the Court of Session].
Or if the interlocutor sheet is not in the hands of the sheriff-clerk (which fact shall be certified by him), the note of appeal may be written upon a separate paper, and lodged along with the sheriff-clerk's said certificate.

On appeal
process to go to
sheriff or clerk
of Session.

88. On an appeal being taken, the sheriff-clerk shall within two days transmit the process to the sheriff or to the Principal Clerk of Session as the case may be, and also send written notice of the appeal to the other parties or their agents, but failure to give such notice shall not invalidate the appeal.

Reclaiming note
or oral hearing
may be ordered.

89. The sheriff may order a reclaiming note and answers, or may hear parties orally.

But may be
dispensed with.

90. The sheriff may, on the motion of both parties, and if he see fit, dispose of the appeal without ordering either a reclaiming note and answers or an oral hearing.

Sheriff to regu-
late interim
possession, &c.,
pending appeal.

91. Notwithstanding an appeal, the sheriff shall have power to regulate all matters relating to interim possession, to make any order for the preservation of any property to which the action relates or for its sale if perishable, or for the preservation of evidence, or to make in his discretion any interim order which a due regard to the interests of the parties may require. Such orders shall not be subject to review except by the Appellate Court at the hearing of the appeal.

485
Appeal to Court
of Session.

92. Within three months from its date (but not later) a final judgment of the sheriff, if not sooner extracted or implemented, may, if appeal be competent, be appealed to the Court of Session. Any other appealable judgment of the sheriff may, if not sooner extracted or implemented, be

490
Form of appeal.

appealed within fourteen days (but not later).
93. The party desiring so to appeal, or his agent, shall do so by writing on the interlocutor sheet (or on a separate paper, in like manner as in the case of an appeal from the sheriff-substitute) a note in the following terms :—

495 The pursuer [or defender or other party] appeals to the
Division of the Court of Session.

Sheriff-clerk to
transmit process
to Edinburgh.

94. On receiving such note of appeal the sheriff-clerk shall within two days transmit the process to the principal clerk of session at Edinburgh, and shall also send written notice of the appeal to the other parties or their agents, but failure to give such notice shall not invalidate the appeal.

500
Form of appeal
to Court of
Session in
actions
advocated under
this Act.

95. If any action is desired to be removed to the Court of Session in terms of sections five and thirty of this Act, the party so desiring its removal shall write a minute to that effect upon the interlocutor sheet, whereupon the sheriff-clerk shall give intimation to the other parties or their agents and shall transmit the process to the Keeper of the Roll of the Court of Session, who shall, under the direction of the Lord President, allocate the cause to a Division and a Lord Ordinary, and thereafter the cause shall proceed in all respects as if it had originally been raised in the Court of Session.

510

96. After an appeal has been noted, the appellant shall not be entitled to abandon it unless of consent of all parties, or by leave of the Appellate Court.

97. In sections 86, 87, 88, 89, 90, and 92 'Sheriff' does not include Sheriff-Substitute.

Expenses.

Decree for expenses to include dues of extract. 98. Every decree for expenses shall be deemed to include a decree for the expense of extracting the same, and extract of such decree for expenses may be issued after the lapse of seven days unless otherwise directed by the sheriff.

Decree for expenses may be extracted in agent's name. 99. Expenses allowed in any action, whether in absence or in foro, shall, unless modified at a fixed amount, be taxed before decree is granted for them, and the sheriff may allow a decree for expenses to go out and be extracted in name of the agent who conducted the cause.

Objection to auditor's report. 100. Within two days after the lodging of the auditor's report on taxation it shall be competent to lodge a note of objections to an auditor's report, and the sheriff shall dispose of such objections in a summary manner, with or without answers.

Wakening.

Wakening action. 101. If no interlocutor shall have been pronounced in a cause for a year and a day it shall be held to have fallen asleep.

To be by minute. 102. Where the whole of the parties or their agents subscribe a minute on the interlocutor sheet consenting to the cause being wakened the sheriff may pronounce an interlocutor wakening the cause, and thereafter proceed with it.

Publication of application for wakening. 103. Where all parties do not so consent, the party desiring to have the cause wakened may lodge a minute to that effect, which the sheriff may order to be intimated to the other parties or their agents, and to be published in such manner as the sheriff shall direct, and the agent for the party applying for wakening shall lodge a certificate that the intimation and publication ordered have been made. If satisfied, the sheriff may thereafter pronounce an interlocutor wakening the cause, and proceed with it.

Sequestration for Rent.

In sequestration for rent. 104. In actions for sequestration, and sale, for recovery, or in security of rent, whether brought after the term of payment or currente termino, payment of rent may be concluded for, and decree for payment of such rent or part thereof when the same has become due and payable may be pronounced and be extracted in common form.

Warrant may be granted to inventory and secure. 105. In the first deliverance upon a writ for sequestration for rent the sheriff may sequester the effects of a tenant, and grant warrant to inventory and secure the same and all warrants to sequester, inventory, sell, eject, or re-let shall be deemed to include authority, if need be, to open shut and lockfast places for the purpose of carrying such warrants into execution.

Sequestered effects may be sold. 106. The sheriff may order the sequestered effects to be sold at the sight of an officer of court or other person named.

Sale to be reported within fourteen days. 107. When a sale follows, it shall be reported within fourteen days and pursuer shall lodge the roup rolls or certified copies thereof and a state of debt.

Sheriff may decree for balance due after sale. 108. In the interlocutor approving the report of sale, or by separate interlocutor, the sheriff may give decree against the defender for any balance remaining due.

Sheriff may appoint care-taker or order caution. 109. The sheriff may at any stage appoint a fit person to take charge of the sequestered effects, or may require the tenant to find caution that they shall be made forthcoming.

Removings.

Action of removing where fixed term of removal.

110. An action of removing may be raised at any time, provided the tenant has bound himself to remove by writing, dated and signed within twelve months of the term of removal, or, where there is more than one ish, of the ish first in date to remove. When the tenant has not so bound himself, an action of removing may be raised at any time provided that—

- 575 (a) In the case of a lease of lands exceeding ten acres in extent for three years and upwards, an interval of not less than one year nor more than two years shall elapse between the date of notice of removal and the term of removal first in date ;
- 580 (b) In the case of leases of lands exceeding ten acres in extent, whether such leases be written or verbal held from year to year or under tacit relocation, or for any other period less than three years, an interval of not less than six months shall elapse between the date of notice of removal and the term of removal first in date ; and
- 585 (c) In the case of houses let with or without land attached not exceeding ten acres in extent as also of land not exceeding ten acres in extent without houses, as also of mills, fishings, shootings, and all other heritable subjects excepting land exceeding ten acres in extent, and let for a year or more forty days at least shall elapse between the date of notice of removal and the term
- 590 of removal first in date.

Provided that nothing herein contained shall affect section 27 of the Agricultural Holdings Act, 1883. Provided also that in any defended action of removing the sheriff may order the defender to find caution for violent profits. Provided also that in actions of declarator of

595 irritancy and removing by a superior against a vassal the pursuer shall call as parties the last entered vassal and such heritable creditors and holders of postponed ground burdens as are disclosed by a search for twenty years prior to the raising of the action, and the expense of the search shall form part of pursuer's expenses of process.

Form of notice of removal.

111. Notices under sections 32, 33, and 34 of this Act shall be as nearly as may be in the Form H annexed hereto, and a letter of removal may be in the terms of Form I.

112. Notices under section 35 of this Act shall be as nearly as may be in Form J hereto annexed, and such form may be used mutatis mutandis

605 also for notices to the proprietor by or on behalf of the tenant.

113. Removal notices under sections 32, 33, 34, 35, and 38 of the Act may be given by a messenger-at-arms or sheriff-officer, or by registered letter signed by the person entitled to give such notice, or by the law agent or factor of such person, posted at any post office within the

610 United Kingdom in time to admit of its being delivered at the address thereon on or prior to the last date upon which by law such notice must be given, addressed to the person entitled to receive such notice, and bearing the particular address of such person at the time if the same be known ; or if the same be not known then to the last known address of

615 such person.

Evidence of notice to remove.

114. A certificate of notice under rule 111 dated and endorsed upon the lease or extract, or upon the letter of removal, and signed by the sheriff-officer, messenger-at-arms, or by the person giving the notice, or his law agent, or factor, or an acknowledgment of notice endorsed on the lease or

620 extract or letter of removal by the party in possession or his agent shall be sufficient evidence that notice has been given. Where there is no lease a certificate endorsed upon a copy of the notice or letter, certified to be correct, by the person, sheriff-officer, messenger-at-law, law agent, or factor sending the same, which certificate shall be signed by such party

625 sending the notice or letter, shall also be sufficient evidence that notice has been given. A certificate of notice under rule 112, dated and

endorsed upon a copy of the notice or letter signed by the party sending the notice, shall be sufficient evidence that such notice has been given.

Summary Removings.

Form of action for summary removing.

115. The action for summary removing as authorised by section 38 of this Act may be at the instance of a proprietor or his factor, or any other person by law authorised to pursue a process of removing, and be in the Form K hereto annexed.

Form of warrant.

116. The warrant to be granted thereon may be in the Form B hereto annexed upon two days induciæ and may be signed by the sheriff clerk.

Decree in absence may be recalled within three days.

117. If the defender fail to appear the sheriff may dispose of the cause in his absence, but if within three days the defender shall satisfy the sheriff that there was reasonable excuse for his non-appearance, the sheriff may re-hear the cause, and if decree has been granted and not implemented, may recall the decree upon such conditions as to expenses and otherwise as the sheriff shall deem reasonable. Where decree is pronounced in absence, the sheriff may give such directions as he may deem proper for the preservation of the defender's goods and effects.

Service copy warrant sufficient to cite witnesses.
Small debts procedure applies to summary removing.
Form of decree.

118. The warrant upon the petition or complaint or the defender's service copy thereof shall be sufficient warrant for the citation of witnesses.

119. Such causes shall be conducted and disposed of in the summary manner in which proceedings are conducted under the Small Debt Acts and shall not be subject to review.

Sheriff may order caution.

120. When decree and warrant of ejection is granted it shall be in the Form L hereto annexed.

121. The sheriff may order written answers or adjourn the hearing of such causes, but where defences cannot be instantly verified, the sheriff shall ordain the defender to find caution for violent profits, unless the sheriff shall dispense with caution which he may do if he see fit.

When caution found procedure as ordinary action.

122. Where a defender has given in answers and caution for violent profits has been found or has been dispensed with, such causes shall, as nearly as may be thereafter, be conducted according to the procedure in ordinary actions of removing, and shall be subject to review in common form.

Summary Suspension.

Summary application for suspension of charge may be brought in court of defender's domicile.

123. Where a charge has been given on a decree of court granted by the sheriff or a decree of registration proceeding upon a bond, bill, contract, or other form of obligation registered in any sheriff court books, or in the books of council and session, or any others competent, or on letters of horning following on such decree, for payment of any sum of money not exceeding fifty pounds, exclusive of interest and expenses, the person so charged may apply in the sheriff court of his domicile for suspension on caution of such charge and diligence.

Diligence may be sisted on caution.

124. On sufficient caution being found in the hands of the sheriff-clerk for the sum charged for interest and expenses, and a sum to be fixed by the sheriff in respect of expenses to be incurred in the suspension process, the sheriff may sist diligence, order intimation and answers, and proceed to dispose of the cause in a summary manner.

Judgment of sheriff final on competency.

125. If objections be taken to the competency or regularity of suspension proceedings, the judgment of the sheriff-substitute, on such objections, may be appealed to the sheriff, but his judgment thereon shall be final.

Arrestment.

When arrestment schedule not served personally copy to be sent by post.

126. If a schedule of arrestment has not been personally served upon an arrestee, it shall be necessary to make the arrestment effectual, that a copy of the schedule be also sent by postal registered letter to the last known place of abode of the arrestee or if such place of abode is

unknown, or, if the arrestee is a firm or corporation, to the arrestee's principal place of business if known, or if not known to any known place of business of the arrestee, and the officer shall in his execution certify that this has been done, and specify the said address.

Arrestment to be reported.

127. An arrestment used on the dependence shall fall unless the action shall have been served within seven days of the date of execution of arrestment and tabled within fourteen days after service, and when an arrestment has been executed the party using it or his agent shall forthwith report the execution to the sheriff-clerk.

Forthcoming and Multiplepoinding.

Forum of action of multiplepoinding.

128. An action of forthcoming or multiplepoinding may be raised in the sheriffdom where the fund or subject in medio is situated, or in that to whose jurisdiction the arrestee or the holder of the fund is subject although the common debtor may not reside within either sheriffdom.

Real raiser to be set forth.

129. The party raising an action of multiplepoinding shall set forth in the initial writ who is the real raiser. The sheriff may, in an action of multiplepoinding, allow the real raiser his expenses preferably out of the fund in medio; and in an action of forthcoming the expenses of bringing the action shall be deemed to be part of the arrestor's claim, which may be made good out of the arrested fund or subject.

Claims to be ordered.

130. Where, in an action of multiplepoinding, no defences are stated, and where defences are stated and repelled, the sheriff shall order claims, and, if necessary, answers within a short space.

Several claimants may state one paper.

131. Several claimants may state the facts on which they base their claims on the same paper, but, where necessary, they shall append separate claims and separate pleas in law.

When competing claims procedure as in ordinary action.

132. Where there are defences in an action of forthcoming or competing claims in a multiplepoinding process the procedure shall be as near as may be that in ordinary actions where defences have been lodged.

Jury Trial.

Jury.

133. The jury shall consist of two special, and five common jurors, who shall be chosen from a panel of five special and ten common jurors to be cited for the diet.

Citation of jury.

134. The jury shall be cited by the sheriff clerk from the sheriff court jury book in the manner prescribed by law or in use to be followed for the citation of jurors in Scotland; and all statutory or other regulations and customs relative to the citation, non-attendance, selection and swearing of jurors shall (subject to Rules 135 and 139) apply to jury trial in the sheriff court.

Challenge of jurors.

135. Each party in the cause shall have right to challenge one special and one common juror, but not more; and in this matter, where there are more pursuers or defenders than one, they shall act collectively and not individually.

Jury to have copy issue.

136. Each juror empanelled shall, at the commencement of the trial, be supplied by the pursuer with a copy of the questions of fact proposed as set forth in the sheriff's interlocutor.

Practice in proofs to apply.

137. The law and practice relating to the taking of evidence in proofs before the sheriffs shall apply to jury trials. Unless all the parties appearing put in a minute (which may be signed by their agents) dispensing with a record of the proceedings, the same shall be taken by an official shorthand writer of the court, but the notes need not be extended unless, in the case of an appeal, their production shall be ordered by the appellate court, in which event it shall be the duty of the appellant to procure the extended notes, certified by the shorthand writer, and to lodge the same with the principal clerk of session.

Evidence on commission.

138. When evidence has been taken to lie in retentis, if the sheriff is satisfied that the deponing witness is dead, or that he cannot attend at the trial owing to absence or infirmity or other sufficient cause, it shall be competent for the sheriff, on the motion of any party in the cause

(irrespective of which party moved for the commission to take such evidence) to direct that the report of the commission be read to the jury, and when so read such report shall form part of the evidence in the cause; but depositions shall not be read or referred to if the deposing witness attends at the trial.

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Exceptions.

139. Exceptions taken in the course of the trial to rulings of the sheriff in regard to admission or rejection of evidence, or in regard to points of law laid down in the course of the trial or in the sheriff's charge to the jury, shall, if required by the party taking the exception, be recorded to the sheriff's dictation upon the official shorthand notes before the jury proceed to consider their verdict.

755

Addressing jury.

140. No person shall be entitled to address the jury until the leading of evidence has been concluded; but thereafter the parties, personally or by counsel or law agent, may address the jury. One speech only on behalf of each interest represented shall be made.

760

Charge to jury.

141. If the sheriff deem it necessary to charge the jury, he shall do so immediately after, or as soon as practicable after, the conclusion of the speeches, or, if none be made, after the conclusion of the evidence.

Productions.

765

142. Documents or productions intended to be put in evidence or referred to at the trial shall be lodged with the clerk of court four days before the date fixed for the trial, but the sheriff may allow productions to be exhibited and produced at the trial if he is satisfied that they could not reasonably have been lodged earlier and that reasonable notice had been given to the other parties of intention to produce at the trial.

Verdict by majority.

143. The jury may return a verdict by a majority of its number at any time not less than one hour after the jury has been enclosed.

Form of verdict.

144. The verdict of the jury shall be returned in the form of specific answers to the questions propounded by the sheriff, with the addition of a statement of the amount at which they assess the damages in the event of damages being awarded.

775

Verdict to be recorded.

145. The verdict returned by the jury shall be recorded upon the interlocutor sheets, and signed by the clerk of the court, and this having been done, the jury shall be discharged.

And followed by interlocutor.

146. Any party in the cause may, so soon as the verdict has been so recorded, or within fourteen days thereafter, move the sheriff to apply the verdict, and upon this motion the sheriff may hear parties and may make avizandum. As soon as practicable the sheriff shall issue an interlocutor applying the verdict and grant degree accordingly. In this interlocutor the sheriff shall also dispose of the question of expenses.

Interlocutor final if no shorthand notes.

147. When no shorthand notes of the proceedings have been taken, the interlocutor applying the verdict shall not be subject to review.

Grounds of appeal to Court of Session.

790

148. If shorthand notes have been taken, it shall be competent for any party in the cause within fourteen days after the date of the final interlocutor of the sheriff applying the verdict (but not later) to appeal to a division of the court of session by lodging with the sheriff-clerk a note of appeal in the Form M. annexed hereto.

Transmission of process.

149. The sheriff-clerk shall within three days of his receiving the note of appeal notify the other parties in the cause, and transmit the process to the principal clerk of session at Edinburgh.

New trial.

150. If the court shall order a new trial the principal clerk of session shall re-transmit the process to the sheriff-clerk, and the sheriff shall as soon as practicable fix a date of new trial, which shall proceed as herein directed as regards the original trial.

Charge.

Charge against a corporation.

151. A company, corporation, association or firm, or a Board corporate or unincorporate, may be competently charged under their nominate or descriptive name at their principal place of business (which term shall include the office or place of business of the clerk or secretary of any board or corporation) or where their principal place of business is further of Scotland, at any place of business in Scotland.

805

The Poor's Roll.

- Agents to meet to nominate agents for poor. 152. The sheriff shall annually make an order appointing the agents enrolled in his court (or, where the sheriffdom is divided into districts having separate local courts, the agents enrolled in the district courts) to meet to nominate a specified number of agents for the poor.
- 810 Notice of meeting on court-house walls. 153. Notice of such order shall be given by a copy thereof being affixed on the walls of the court-houses and sheriff-clerk's offices in the sheriffdom.
- Nomination to be reported to sheriff. 154. At said meeting the agents present shall, by a majority of votes, nominate the required number of agents, and cause the nominations to be reported to the sheriff.
- Sheriff may confirm or refuse. 155. The sheriff shall have power to confirm the nominations, in whole or in part, or to decline to do so.
- 820 156. Six days before the list is submitted to the sheriff the sheriff-clerk shall notify each agent who has been nominated, and such agent may, before the nominations are confirmed, represent to the sheriff any reason why his nomination should not be confirmed.
- If agents fail to do so sheriffs may nominate. 157. In the event of the agents failing to nominate as above provided for, or the sheriff not confirming the nomination, the sheriff may himself make the requisite nomination or may appoint another meeting to be held.
- Agents to act for one year. 158. The agents nominated shall act as agents for the poor in the sheriffdom, or the district in which they are appointed, for one year, but they shall be eligible for re-nomination.
- Agents to act as directed by sheriff. 159. The agents so nominated, shall as they themselves arrange, or as the sheriff shall direct, act as procurators for the poor in all causes, civil and criminal, including attendance at the circuit court.
- Agents to assist each other. 160. The agents for the poor, in their respective districts, shall assist each other by taking precognitions, or proofs on commission, or otherwise as may be requisite and reasonable.
- 835 161. In sections 152 to 157 "sheriff" does not include sheriff-substitute.
- Applicant to produce certificate of poverty. 162. Along with his application for the benefit of the poor's roll, the applicant shall produce a certificate signed by the inspector or an assistant inspector of poor of the parish or district where the applicant resides, bearing that the applicant is unable, through poverty, to pay for the conduct of legal proceedings.
- Application to be remitted to procurators for poor. 163. The sheriff shall remit the application to the procurators for the poor who shall notify the parties, and after enquiry shall make a report to the sheriff.
- If they report applicant entitled, sheriff to appoint an agent to conduct cause. 164. If they report that the applicant has a probable cause of action and is entitled to the benefit of the poor's roll, the sheriff shall appoint one of the agents to take charge of the applicant's case.
165. Such agent shall conduct the cause to its final issue, notwithstanding that during its progress he may have ceased to be an agent for the poor.
- Agent to have no claim for fees unless recovered from other party. 166. Unless expenses shall be awarded against and recovered from the opposite party, the agent shall have no claim for fees; but the litigant shall be liable to him for actual outlays incurred with the litigant's sanction.
167. The agent shall not be liable for witnesses' fees, shorthand writers' fees, or court dues unless they are recovered by the agent personally.
- Agent not liable for court dues. 168. Neither the agent nor the litigant shall be liable for dues of court or officers' fees, unless these are awarded against and recovered from the opposite party, in which case the litigant (or the agent, if he personally recovers the same) shall be liable.
- Sheriff may remove litigant from poor's roll. 169. It shall be in the power of the sheriff at any time to deprive any litigant of the benefit of the poor's roll.

865

Form A.

Sheriffdom of _____ at _____

A.B. [design him ; if he sues in any special character set that forth ; as also where necessary relationship to defender, e.g., wife of defender or a creditor of defender, &c.],

870 Pursuer.

Against.

C.D. [design him ; if sued in any special character set that forth, e.g., as trustee, or as vitious intromitter, &c.],

Defender.

875 The claim or demand or complaint of the pursuer is [*here state shortly the general nature of the claim or demand or ground of appeal or cause of action, as for example*] :—

- (a) For payment of £ _____ for goods sold and delivered (or otherwise) conform to account hereto annexed.
- 880 (b) For delivery of.
- (c) For an accounting with defender as (*state character in which defender is liable to account*).
- (d) For exoneration as holder of (*state fund or subject in medio*).
- (e) For declator that.
- 885 (f) For warrant to.
- (g) For sequestration (*for rent or in bankruptcy*).
- (h) For recall of arrestments (*used by defender in the hands of, &c.*).
- (i) For letters of arrestment ad fundandum jurisdictionem.
- (j) For confirmation of bye-laws.
- 890 (k) For appointment of judicial factor.
- (l) That defender be ordained to (*execute work, sign deeds, remove, or as the case may be*).
- (m) That pursuer is aggrieved by (*state shortly nature of bye-law in order, &c., appealed against*).
- 895 (n) (*Otherwise as the case may be*).]

Therefore the pursuer craves the Court [*here set forth the specific decree, warrant, or order asked giving all the particulars to be embodied (if necessary) in an extract.*]

(To be signed) *A.B.*, pursuer,

900

or,
X.Y., [*add designation and business address*],
pursuer's agent.

Form B.

[*Place and date.*] Grants warrant to cite, the defender [*or respondent*].
905 by serving a copy of the writ and warrant upon an induciæ of _____,
_____ , and appoints him to answer within the sheriff court-
house at _____ [*in Room No. _____, or in Chambers, or as the*
case may be], on _____ the _____ day of _____
at _____ o'clock _____ noon, under certification of being held as confessed.
910 [*When necessary add (meantime sequestrates and grants warrant to inventory and secure) ; or (grants warrant to arrest on the dependence) ; or (otherwise as the case may be).*]

Form C.

[*Place and date.*] Grants warrant to cite the defender by serving a copy
915 of the writ and warrant upon an induciæ of _____ days, and appoints him,
if he intend to defend, to lodge a notice of appearance with the sheriff-clerk
at _____ within the induciæ, under certification of being held as
confessed. [*Meantime grants interim interdict, or warrant to arrest on the
dependence, or sequestrates and grants warrant to inventory ; or otherwise,*
920 *as the case may be.*]

Form D.

[*Place and date, and if necessary, hour.*] C.D., defender. You are hereby served with the foregoing [*or within-written*] writ and warrant and required to answer thereto, conform to the said warrant. [*If posted and if*
 925 *necessary add (The induciæ is reckoned from twenty-four hours after date of posting).*]

[*To be signed*] P.Q., sheriff officer ;

or

X.P., [*add designation and business address*]

930

Pursuer's Agent.

Form E.

[*Place and date.*] I, , do hereby certify that upon the day of [*if necessary add between the hours of and*] I duly cited C.D., the defender [*or respondent*], to answer to
 935 the foregoing [*or within-written*] writ. This I did by [*set forth mode of service, if by officer and not by post, add in presence of I.M. (design him)*] witness, hereto with me subscribing.]

[*To be signed*] P.Q., sheriff officer ;

I.M., witness ;

940

or

X.Y., [*add designation and business address*]

Pursuer's Agent.

Form F.

K.L. [*design him*], you are hereby required to attend at the Sheriff
 945 Court House at [*street address*] [*if necessary, add within Court Room, No., , or in Chambers*], on the day of , at o'clock noon, to give evidence for pursuer [*or appellant or complainer*] [*or defender or respondent*] in the action A.B. [*design him*], pursuer, against C.D. [*design him*], and [*if necessary*] you are required to
 950 bring with you [*specify documents*] under penalty of forty shillings if you fail to attend.

Dated this day of [*if necessary add between the hours of and noon.*]

[*Signed*] P.Q., sheriff officer ;

955

or

X.Y. [*add designation and business address*].

Pursuer's [*or defender's or appellant's or respondent's*] Agent.

Form G.

960 [*Place and date.*] I, do hereby certify that upon the day of [*if necessary add between the hours of and noon*], I duly cited K.L. [*design him*], to attend at o'clock noon, within to give evidence for the in the action A.B. [*design him*],
 965 against C.D. [*design him*], and I also required him to bring with him [*specify documents*]. This I did by [*set forth mode of citation*].

[*Signed*] P.Q. sheriff officer ;

or

X.Y. [*add designation and business address*].

970

Pursuer's [*or defender's or appellant's or respondent's*] Agent.

Form H.

To [name, designation, and address of party in possession].

975 You are required to remove from [describe subjects] at the term of
[or if different terms, state them and the subjects to which
they apply], in terms of lease [describe it] or [in terms of your letter of
removal of date] or [otherwise as case may be].

Form I.

To [name and designation of addressee].

980 [Place and date.]—I am to remove from [state subjects by usual name
or short description sufficient for identification] at the term of

K.L. [add designation and address.]

If not holograph to be attested thus—

M.N. [add designation and address], witness.

985

Form J.

[Place and date.]

You are required to remove from [] that portion of
ground [describe it]; or the mill of [describe it]; or the shootings of the
lands and estate of [describe them]; or [other subjects to which this notice
990 is applicable], at the term of Whitsunday [insert year] [or Martinmas, as
the case may be, inserting after the year the words, being the 15th day
of May, or the 11th day of November, or the 28th day of May, or the
28th day of November, as the case may be.]

To K.L. [designation and address].

995

Form K.

In the sheriff court of
at

1000 A.B. [design him], pursuer, complains that he [or his author, as the case
may be], let to C.D. [design him], defender [or his author, as the case may
be], a dwelling-house garden, and pertinents [or other subjects, as the case
may be], situated at

to

1005 , and that the
defender refuses or delays to remove therefrom, although his term of
occupancy has expired, and it is necessary to obtain warrant for his
ejection; therefore decree ought to be granted for removing and ejecting
the defender his family, sub-tenants, cottars, and dependants, with their
goods and gear, furth and from the said subjects [here insert date at which
removal or ejection is sought], that the pursuer or others in his right may
then enter to and possess the same. [If expenses are sought add, "and the
1010 defender ought to be found liable in the expenses of process and dues of
extract"].

[Signature of pursuer or his agent].

Form L.

1015 At the day of the
sheriff [in absence of defender, or having heard parties, as the case may be]
grants warrant for ejecting the said C.D., defender, and others mentioned
in the complaint from the subjects therein specified, such ejection not being
sooner than [here insert time appointed for ejection, and whether after a
charge on such induciæ as may be deemed proper or instantly]: Finds the
1020 defender liable in of expenses [or otherwise, as the case
may be] and decerns.

[Signature of Sheriff.]

Form M.

At the jury trial in the action at the instance of *A.B.* [*design him*],
 1025 pursuer, against *C.D.* [*design him*], defender, held at
 , on the day of
 before sheriff [substitute, of .
 The questions of fact proponed to the jury, and their answers thereto, were
 as follows :—

1030 *Question 1.* [State it per sheriff's interlocutor.]
 Answer 1. [State it per the recorded verdict of the jury.]

The jury awarded damages to _____, and assessed the same at £ _____.

The sheriff on
1035 a copy of which is appended hereto.

The [state party appealing] appeals to the Division of the Court of Session upon the ground [here state the grounds conform to section 31 of the Act].

1040 (a) That in the interlocutor complained of the verdict was erroneously applied.

(b) That the verdict of the jury was contrary to evidence in respect [here set forth clearly and succinctly the particulars in which it is alleged the evidence led and the verdict returned are inconsistent].

1045 (c) That evidence was unduly admitted [*or rejected*] in regard to
[*here set forth shortly the fact in regard to which the evidence*
was admitted or rejected].

(d) That the sheriff misdirected the jury in regard to [here state shortly the point of law alleged to be misdirection].

1050 (e) That the damages awarded by the jury were excessive.

M.P., pursuer [*or other party*],

or

X.Y. [signature and business address],

Agent for the

1055 Appendix. [*Here copy interlocutor appealed against.*]

— (*The Lord Advocate*).

Schedule read a second time and added to the Bill.

Ordered, To Report the Bill, as amended, to the House.

R E P O R T

FROM THE

STANDING COMMITTEE ON SCOTTISH BILLS

ON THE

SHERIFF COURTS (SCOTLAND) BILL.

WITH THE

PROCEEDINGS OF THE COMMITTEE

*Ordered, by The House of Commons, to be Printed,
19 August, 1907.*

[*Price 4d.*]

319

Under 4oz.

R E P O R T

FROM

STANDING COMMITTEE C

ON THE

Small Holdings and Allotments Bill.

WITH THE

PROCEEDINGS OF THE COMMITTEE.

*Ordered, by The House of Commons, to be Printed,
2 August, 1907.*

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1907.

1907.

STANDING COMMITTEE C.

[*Monday, 4th March, 1907*]:—Mr. Stuart Wortley *reported* from the Chairman's Panel: That they had agreed to the following Resolution, That any Member of the Chairman's Panel be and he is thereby empowered to ask any other Member of the Chairman's Panel to take his place in case of necessity.

[*Wednesday, 6th March, 1907*]:—Standing Committees,—*Ordered*, That all Standing Committees have leave to print and circulate with the Votes the Minutes of their Proceedings, and any amended Clauses of Bills committed to them.

[*Tuesday, 23rd April, 1907*]:—Selection (Standing Committees and Chairmen's Panel),—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had nominated the following Members to serve on the three Standing Committee for the consideration of all Public Bills not relating exclusively to Scotland, which may be committed to a Standing Committee:—

STANDING COMMITTEE C.

Mr. William Abraham (Cork).
Mr. Ainsworth.
Mr. Alden.
Mr. Atherley-Jones.
Mr. Harmood-Banner.
Mr. Barran.
Sir John Benn.
Mr. Billson.
Mr. Bowles.
Mr. Brace.
Mr. Bramsdon.
Mr. Carlile.
Mr. Cheetham.
Mr. Herbert Craig.
Mr. Cremer.
Mr. Cross.
Mr. Cullinan.
Mr. Dickinson.
Sir Frederick Dixon-Hartland.
Mr. Dolan.
Sir George Doughty.
Mr. Duckworth.
Mr. Charles Duncan.
Mr. James Duncan.
Mr. Clement Edwards.
Mr. Everett.
Mr. Denison Faber.
Mr. Findlay.
Mr. Munro Ferguson.
Mr. Hart-Davies.
Mr. Hayden.
Mr. Healy.
Mr. Idris.
Mr. Kearley.

Mr. Lehmann.
Mr. Lloyd-George.
Colonel Charles Long.
Mr. Walter Long.
Sir Philip Magnus.
Major M'Micking.
Mr. Jeremiah MacVeagh.
Viscount Morpeth.
Mr. Napier.
Mr. Paul.
Earl Percy.
Mr. Pickersgill.
Mr. William Priestley.
Mr. William Redmond.
Mr. Rees.
Mr. George Henry Roberts.
Sir George Scott Robertson.
Mr. Abel Smith.
Mr. Soames.
Sir Albert Spicer.
Sir Edward Strachey.
Mr. John Taylor.
Mr. Thornton.
Mr. Verney.
Sir Howard Vincent.
Mr. Vivian.
Mr. Walker.
Mr. Warner.
Mr. George White.
Mr. Whitehead.
Mr. Osmond Williams.
Lord Willoughby de Eresby.
Mr. Young.

[*Monday, 29th April, 1907*]:—Standing Committees (Chairmen's Panel),—Mr. Stuart Wortley *reported* from the Chairmen's Panel; That they had appointed Sir Thomas Esmonde to act as Chairman of the Standing Committee A; Mr. John William Wilson to act as Chairman of Standing Committee B; Mr. Laurence Hardy to act as Chairman of Standing Committee C; and Mr. Eugene Wason to act as Chairman of the Standing Committee on Scottish Bills.

[*Tuesday, 28th May, 1907*]:—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C: Mr. George Roberts; and had appointed in substitution: Mr. Shackleton.

[*Friday, 7th June, 1907*]:—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C: Mr. Everett; and had appointed in substitution: Sir Francis Channing.

[*Thursday, 13th June, 1907*]:—Small Holdings and Allotments Bill,—Order read, for resuming Adjourned Debate on Question [12th June], “That the Bill be now read a second time:”—

Question again proposed:—Debate *resumed*:—

Question put, and *agreed to*.

Bill read a second time:—

Motion made, and Question put, “That the Bill be committed to a Committee of the whole House:”—(*Mr. Balfour*:)—The House *divided*; Ayes 107, Noes 330.

Bill committed to a Standing Committee.

[*Friday, 14th June, 1907*]:—

DISTRIBUTION BY MR. SPEAKER, PURSUANT TO STANDING ORDER 47,
OF BILLS COMMITTED TO A STANDING COMMITTEE.

Name of Bill.	Standing Committee.
Small Holdings and Allotments Bill	C.

[*Tuesday, 18th June, 1907*]:—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Members from Standing Committee C: Mr. Walter Long, Earl Percy, and Mr. Abel Smith; and had appointed in substitution: Mr. Cave, Mr. George Faber, and Mr. Gretton.

[*Tuesday, 18th June, 1907*]:—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Members from Standing Committee C (in respect of the Small Holdings and Allotments Bill): Mr. Lloyd-George, Mr. Kearley, Mr. Idris, Mr. Hart-Davies, Mr. Ainsworth, Mr. Findlay, Mr. Duckworth, Mr. James Duncan, Mr. Paul, Sir Albert Spicer, Sir Philip Magnus, and Mr. Thornton; and had appointed in substitution: Mr. Harcourt, Mr. Solicitor-General, Mr. Masterman, Mr. Rogers, Mr. Rowlands, Mr. Leif Jones, Mr. Essex, Mr. Nussey, Major Dunne, Mr. Montagu, Mr. Lane-Fox, and Mr. Bridgeman.

Sir William Brampton Gurdon further *reported* from the Committee; That they had added to Standing Committee C the following fifteen Members (in respect of the Small Holdings and Allotments Bill):—Mr. Nicholls, Mr. George Roberts, Mr. Chaplin, Mr. Jesse Collings, Mr. Courthope, Mr. Hicks Beach, Mr. Ernest Gardner, Mr. Burns, Mr. Lambert, Sir Walter Foster, Mr. Dudley Ward, Mr. Winfrey, Sir John Dickson-Poynder, Mr. Grant, and Mr. Ellis Davies.

[*Wednesday 19th June, 1907*]:—Standing Committees (Chairmen’s Panel).—Mr. Stuart Wortley *reported* from the Chairmen’s Panel: That they had appointed Mr. Stuart Wortley to act as Chairman of Standing Committee C, in place of Mr. Laurence Hardy.

[*Thursday, 20th June, 1907*]:—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Members from Standing Committee C (in respect of the Small Holdings and Allotments Bill): Sir John Benn, Major M’Micking, Mr. Munro Ferguson, and Mr. Whitehead; and had appointed in substitution (in respect of the Small Holdings and Allotments Bill): Sir John Bethell, Mr. Guest, Mr. Wedgwood, and Mr. Soares.

[*Friday, 21st June, 1907*]:—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Members from Standing Committee C (in respect of the Small Holdings and Allotments Bill): Mr. Charles Duncan and Mr. Atherley-Jones; and had appointed in substitution (in respect of the Small Holdings and Allotments Bill): Mr. W. Tyson Wilson and Mr. Silcock.

[*Wednesday, 26th June, 1907*]:—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C: Mr. Bowles; and had appointed in substitution: Mr. Beckett.

Sir William Brampton Gurdon further *reported* from the Committee; That they had discharged the following Member from Standing Committee C (in respect of the Small Holdings and Allotments Bill): Mr. George Faber; and had appointed in substitution (in respect of the Small Holdings and Allotments Bill): Mr. Mansfield.

[*Thursday, 27th June, 1907*]:—Selection (Standing Committees).—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C (in respect of the Small Holdings and Allotments Bill): Mr. Herbert Craig; and had appointed in substitution (in respect of the Small Holdings and Allotments Bill): Mr. Morrell.

[*Friday, 28th June, 1907*]:—Selection (Standing Committees).—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Members from Standing Committee C: Mr. Shackleton and Mr. John Taylor (in respect of the Small Holdings and Allotments Bill), Mr. George Roberts (added in respect of the Small Holdings and Allotments Bill); and had appointed in substitution (in respect of the Small Holdings and Allotments Bill): Mr. Hodge, Mr. Gill, and Mr. Jowett.

[*Thursday, 11th July, 1907*]:—Selection (Standing Committees),—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C: Sir George Doughty; and had appointed in substitution: Mr. Harrison-Broadley.

Sir William Brampton Gurdon further *reported* from the Committee; That they had added the following Member to Standing Committee C: Mr. Howard.

[*Monday, 15th July, 1907*]:—Selection (Standing Committees),—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C (added in respect of the Small Holdings and Allotments Bill): Mr. Lambert; and had appointed in substitution (in respect of the Small Holdings and Allotments Bill): Mr. Bennett.

[*Tuesday, 16th July, 1907*]:—Selection (Standing Committees),—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Members from Standing Committee C (added in respect of the Small Holdings and Allotments Bill): Mr. Hodge and Mr. Gill; and had reinstated on the Committee: Mr. Shackleton and Mr. John Taylor (previously discharged in respect of the Small Holdings and Allotments Bill).

Sir William Brampton Gurdon further *reported* from the Committee; That they had discharged the following Member from Standing Committee C (added in respect of the Small Holdings and Allotments Bill): Mr. Jowett; and had appointed in substitution (in respect of the Small Holdings and Allotments Bill): Mr. George Roberts.

[*Wednesday, 17th July, 1907*]:—Selection (Standing Committees),—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C: Sir Howard Vincent; and had appointed in substitution: Captain Hervey.

[*Friday, 19th July, 1907*]:—Selection (Standing Committees),—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C (added in respect of the Small Holdings and Allotments Bill): Mr. Bennett; and had appointed in substitution (in respect of the Small Holdings and Allotments Bill): Mr. Hedges.

[*Tuesday, 23rd July, 1907*]:—Selection (Standing Committees),—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C (added in respect of the Small Holdings and Allotments Bill): Mr. Nicholls; and had appointed in substitution (in respect of the Small Holdings and Allotments Bill): Mr. George Hardy.

[*Thursday, 25th July, 1907*]:—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C: Colonel Long; and had appointed in substitution: Mr. Bowles.

[*Friday, 26th July, 1907*]:—Selection (Standing Committees),—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C (in respect of the Small Holdings and Allotments Bill): Mr. Shackleton; and had appointed in substitution (in respect of the Small Holdings and Allotments Bill): Mr. Parker.

Sir William Brampton Gurdon further *reported* from the Committee; That they had added the following Member to Standing Committee C: Mr. Murphy.

Sir William Brampton Gurdon further *reported* from the Committee; That they had discharged the following Members from Standing Committee C (added in respect of the Small Holdings and Allotments Bill): Mr. George Hardy and Mr. Hedges; and had appointed in substitution (in respect of the Small Holdings and Allotments Bill): Mr. Nicholls and Mr. Bennett.

Sir William Brampton further *reported* from the Committee; That they had discharged the following Member from Standing Committee C (added in respect of the Small Holdings and Allotments Bill): Mr. Beck; and had reinstated on the Committee (previously discharged in respect of the Small Holdings and Allotments Bill): Mr. George White.

[*Thursday, 1st August, 1907*]:—Standing Committee C,—*Ordered*, That Standing Committee C have leave to sit this day during the Sitting of the House.—(*Mr. Harcourt.*)

R E P O R T.

STANDING COMMITTEE C, to whom the SMALL HOLDINGS AND ALLOTMENTS BILL was referred;—Have gone through the Bill, and made Amendments thereunto.

2nd August, 1907.

STANDING COMMITTEE C.

Tuesday, 25th June, 1907.

MEMBERS PRESENT:

Mr. STUART WORTLEY in the Chair.

Mr. Alden.	Mr. Gretton.
Mr. Hicks Beach.	Mr. Harcourt.
Mr. Billson.	Mr. Leif Jones.
Mr. Brace.	Mr. Lane-Fox.
Mr. Bramsdon.	Mr. Lehmann.
Mr. Bridgeman.	Colonel Long.
Mr. Burns.	Mr. Masterman.
Mr. Carlile.	Mr. Montagu.
Mr. Cave.	Viscount Morpeth.
Sir Francis Channing.	Mr. Napier.
Mr. Chaplin.	Mr. Nicholls.
Mr. Cheetham.	Mr. Nussey.
Mr. Jesse Collings.	Mr. Pickersgill.
Mr. Courthope.	Mr. William Priestley.
Mr. Herbert Craig.	Mr. Rogers.
Mr. Ellis Davies.	Mr. Rowlands.
Mr. Dickinson.	Mr. Shackleton.
Sir John Dickson-Poynder.	Mr. Soares.
Sir Frederick Dixon-Hartland.	Mr. Solicitor-General.
Major Dunne.	Mr. Verney.
Mr. Clement Edwards.	Mr. Walker.
Mr. Essex.	Mr. Dudley Ward.
Mr. Denison Faber.	Mr. Warner.
Mr. George H. Faber.	Mr. Wedgwood.
Sir Walter Foster.	Mr. George White.
Mr. Ernest Gardner.	Lord Willoughby de Eresby.
Mr. Grant.	Mr. Winfrey.

SMALL HOLDINGS AND ALLOTMENTS BILL.

Clause 1.

Resolution of the House (24th June), read as follows :—

“That it is expedient to authorise the payment, out of money provided by Parliament, of the salaries, remuneration, and expenses of the Small Holdings Commissioners and other officers appointed under any Act of the present Session to amend the law with respect to Small Holdings and Allotments; and to authorise the payment to the Small Holdings Account of the costs and expenses of the Board of Agriculture and Fisheries incurred in pursuance of such Act.”

Amendment proposed, in page 1, line 8, after the word “to,” to insert the words “making provision for the continuance on existing small holdings of the present tenants of such holdings and to”—(*Mr. Ellis Davies*).—Question, “That those words be there inserted,”—put, and *negatived*.

Another Amendment proposed, in page 1, line 10, to leave out all the words from the word “appoint” to the word “such,” in line 12—(*Mr. Hicks Beach*).—Question put, “That the words ‘two or more’ stand part of the Clause.”—The Committee divided :

Ayes, 34.

Mr. Alden.
Mr. Billson.
Mr. Bramsdon.
Sir Francis Channing.
Mr. Cheetham.
Mr. Herbert Craig.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Essex.
Mr. George H. Faber.
Sir Walter Foster.
Mr. Grant.
Mr. Harcourt.
Mr. Leif Jones.
Mr. Lehmann.
Mr. Masterman.
Mr. Montagu.
Mr. Napier.
Mr. Nicholls.
Mr. Nussey.
Mr. William Priestley.
Mr. Rogers.
Mr. Rowlands.
Mr. Shackleton.
Mr. Soares.
Mr. Solicitor-General.
Mr. Walker.
Mr. Dudley Ward.
Mr. Warner.
Mr. Wedgwood.
Mr. George White.
Mr. Winfrey.

Noes, 13.

Mr. Hicks Beach.
Mr. Bridgeman.
Mr. Cave.
Mr. Chaplin.
Mr. Jesse Collings.
Sir Frederick Dixon-Hartland.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Lane-Fox.
Colonel Long.
Viscount Morpeth.
Lord Willoughby de Eresby.

Another Amendment proposed, in page 1, line 10, after the word "more," to insert the words "persons acquainted with the agricultural conditions of the areas in which they are intended to act"—(*Mr. Chaplin*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Amendment made, in page 1, line 10, by inserting after the word "more" the words "persons possessed of a knowledge of agriculture to be."—(*Mr. Chaplin*).

Another Amendment made, in page 1, line 12, by inserting after the word "and" the words "may appoint"—(*Mr. Harcourt*).

Another Amendment proposed, in page 1, line 18, to leave out all the words from the word "Act" to the word "be," in line 20—(*Mr. Bridgeman*).—Question, "That the words 'to such amount' stand part of the Clause,"—put, and *agreed to*.

Question put, "That Clause 1, as amended, stand part of the Bill."—The Committee divided:

Ayes, 30.

Mr. Alden.
Mr. Billson.
Mr. Bramsdon.
Sir Francis Channing.
Mr. Cheetham.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Essex.
Mr. George H. Faber.
Sir Walter Foster.
Mr. Grant.
Mr. Harcourt.
Mr. Leif Jones.
Mr. Lehmann.
Mr. Masterman.
Mr. Montagu.
Mr. Napier.
Mr. Nicholls.
Mr. Nussey.
Mr. Rogers.
Mr. Rowlands.
Mr. Shackleton.
Mr. Soares.
Mr. Solicitor-General.
Mr. Walker.
Mr. Dudley Ward.
Mr. Warner.
Mr. Winfrey.

Noes, 11.

Mr. Hicks Beach.
Mr. Bridgeman.
Mr. Cave.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Lane-Fox.
Colonel Long.
Lord Willoughby de Eresby.

Clause 2.

Amendment proposed, in page 1, line 22, at the beginning of the Clause to insert the words "Any five or more county electors in a county may make a representation to the Board alleging that there is in the county a demand for small holdings on the part of persons able and willing themselves to cultivate the same,

and thereupon,"—(*Mr. Cave*).—Question put, "'That those words be there inserted."
—The Committee divided :

Ayes, 12.

Mr. Hicks Beach.
Mr. Bridgeman.
Mr. Cave.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Courthope.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Lane-Fox.
Colonel Long.
Lord Willoughby de Eresby.

Noes, 30.

Mr. Alden.
Mr. Billson.
Mr. Bramsdon.
Mr. Burns.
Sir Francis Channing.
Mr. Cheetham.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Essex.
Mr. Grant.
Mr. Harcourt.
Mr. Leif Jones.
Mr. Lehmann.
Mr. Masterman.
Mr. Montagu.
Mr. Napier.
Mr. Nicholls.
Mr. Nussey.
Mr. Pickersgill.
Mr. Rogers.
Mr. Rowlands.
Mr. Soares.
Mr. Solicitor-General.
Mr. Walker.
Mr. Dudley Ward.
Mr. Warner.
Mr. Wedgwood.
Mr. Winfrey

[Adjourned till Thursday next at half-past eleven o'clock.]

Thursday, 27th June, 1907.

MEMBERS PRESENT :

Mr. STUART WORTLEY in the Chair.

Mr. Alden.	Mr. Lambert.
Mr. Hicks Beach.	Mr. Lane-Fox.
Mr. Beckett.	Mr. Lehmann.
Sir John Bethell.	Colonel Long.
Mr. Billson.	Mr. Masterman.
Mr. Brace.	Mr. Montagu.
Mr. Bramsdon.	Viscount Morpeth.
Mr. Bridgeman.	Mr. Napier.
Mr. Burns.	Mr. Nicholls.
Sir Francis Channing.	Mr. Nussey.
Mr. Chaplin.	Mr. Pickersgill.
Mr. Cheetham.	Mr. William Priestley.
Mr. Jesse Collings.	Sir George Scott Robertson.
Mr. Courthope.	Mr. Rogers.
Mr. Cremer.	Mr. Rowlands.
Mr. Ellis Davies.	Mr. Shackleton.
Mr. Dickinson.	Mr. Soames.
Sir John Dickson-Poynder.	Mr. Soares.
Sir Frederick Dixon-Hartland.	Mr. Solicitor-General.
Major Dunne.	Sir Edward Strachey.
Mr. Clement Edwards.	Mr. Verney.
Mr. Essex.	Mr. Vivian.
Mr. Denison Faber.	Mr. Walker.
Sir Walter Foster.	Mr. Dudley Ward.
Mr. Ernest Gardner.	Mr. Warner.
Mr. Grant.	Mr. Wedgwood.
Mr. Gretton.	Mr. Osmond Williams.
Mr. Guest.	Lord Willoughby de Eresby.
Mr. Harcourt.	Mr. Winfrey.
Mr. Leif Jones.	Mr. Young.

SMALL HOLDINGS AND ALLOTMENTS BILL.

Clause 2, further considered.

Another Amendment proposed, in page 1, line 22, to leave out the words "The Commissioners, acting under the directions of"—(*Mr. Courthope*).—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 1, lines 23 and 24, to leave out the words "either actual or prospective"—(*Mr. Chaplin*).—Question put, "That the words proposed to be left out stand part of the Clause."—The Committee divided:

Ayes, 42.

Mr. Alden.
Sir John Bethell.
Mr. Billson.
Mr. Brace.
Mr. Bramsdon.
Mr. Burns.
Sir Francis Channing.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Clement Edwards.
Mr. Essex.
Sir Walter Foster.
Mr. Grant.
Mr. Guest.
Mr. Leif Jones.
Mr. Lehmann.
Mr. Masterman.
Mr. Montague.
Mr. Napier.
Mr. Nicholls.
Mr. Nussey.
Mr. Pickersgill.
Mr. William Priestley.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Shackleton.
Mr. Soames.
Mr. Soares.
Mr. Solicitor-General.
Sir Edward Strachey.
Mr. Verney.
Mr. Vivian.

Noes, 14.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Courthope.
Sir Frederick Dixon-Hartland.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Lane-Fox.
Colonel Long.
Viscount Morpeth.
Lord Willoughby de Eresby.

Ayes—*continued*.

Mr. Walker.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Wedgwood.
 Mr. Osmond Williams.
 Mr. Winfrey.
 Mr. Young.

Another Amendment proposed, in page 2, line 3, after the word "Act," to insert the words "the facilities afforded by private enterprise, and all local circumstances"—(*Mr. Lane-Fox*)—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 2, line 3, to leave out all the words from the word "demand," to the word "necessary," in line 6, inclusive—(*Mr. Chaplin*).—Question, "That the words 'and for that purpose,' stand part of the Clause,"—put, and *agreed to*.

Another amendment proposed, in page 2, lines 3 and 4, to leave out the words "may employ or," in order to insert the word "shall"—(*Mr. Courthope*)—instead thereof.—Question put, "That the word 'may' stand part of the Clause."—The Committee divided :

Ayes, 42.

Mr. Alden.
 Mr. Billson.
 Mr. Brace.
 Mr. Bramsdon.
 Mr. Burns.
 Sir Francis Channing.
 Mr. Cheetham.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Clement Edwards.
 Mr. Essex.
 Sir Walter Foster.
 Mr. Grant.
 Mr. Guest.
 Mr. Harcourt.
 Mr. Leif Jones.
 Mr. Lambert.
 Mr. Lehmann.
 Mr. Masterman.
 Mr. Montagu.
 Mr. Napier.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. Pickersgill.
 Mr. William Priestley.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Shackleton.
 Mr. Soames.
 Mr. Soares.
 Mr. Solicitor-General.

Noes, 14.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Sir Frederick Dixon-Hartland.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Mr. Lane-Fox.
 Colonel Long.
 Viscount Morpeth.
 Mr. Wedgwood.
 Lord Willoughby de Eresby.

Ayes—*continued.*

Sir Edward Strachey.
Mr. Vivian.
Mr. Walker.
Mr. Dudley Ward.
Mr. Warner.
Mr. Osmond Williams.
Mr. Winfrey.
Mr. Young.

An Amendment made, in page 2, lines 5 and 6, by leaving out the words "and may take such other steps as they think necessary"—(*Mr. Gretton*).

Another Amendment proposed, in page 2, line 8, to leave out the word "may," in order to insert the word "shall"—(*Mr. Bridgeman*)—instead thereof.—Question, "That the word 'may' stand part of the Clause,"—put, and *agreed to*.

Another Amendment proposed, in page 2, line 8, to leave out the word "Commissioners," in order to insert the word "Board"—(*Mr. Hicks Beach*)—instead thereof.—Question, "That the word 'Commissioners' stand part of the Clause"—put, and *agreed to*.

Another Amendment proposed, in page 2, line 10, after the word "Council," to insert the words "either directly or by means of any Allotments or Small Holdings Committee appointed by the Council"—(*Mr. Verney*).—Question, "That those words be there inserted"—put, and *negatived*.

Another Amendment made, in page 2, line 11, after the word "may," by inserting the word "reasonably"—(*Mr. Chaplin*).

Another Amendment proposed, in page 2, line 13, to leave out subsection (3)—(*Mr. Masterman*).—Question proposed, "That the word 'The,' at the beginning of the subsection, stand part of the Clause."

Debate arising.

[Adjourned till Tuesday next at half-past eleven o'clock.]

Tuesday, 2nd July, 1907.

MEMBERS PRESENT:

Mr. STUART-WORTLEY in the Chair.

Mr. William Abraham (<i>Cork</i>).	Mr. Jowett.
Mr. Alden.	Mr. Lambert.
Mr. Hicks Beach.	Mr. Lehmann.
Mr. Beckett.	Colonel Long.
Sir John Bethell.	Mr. Mansfield.
Sir Alfred Billson.	Mr. Masterman.
Mr. Brace.	Mr. Montagu.
Mr. Bramsdon.	Viscount Morpeth.
Mr. Bridgeman.	Mr. Morrell.
Mr. Burns.	Mr. Napier.
Mr. Carlile.	Mr. Nicholls.
Mr. Cave.	Mr. Nussey.
Sir Francis Channing.	Mr. William Redmond.
Mr. Chaplin.	Mr. Rees.
Mr. Cheetham.	Sir George Scott Robertson.
Mr. Jesse Collings.	Mr. Rogers.
Sir Randal Cremer.	Mr. Rowlands.
Mr. Ellis Davies.	Mr. Silcock.
Mr. Dickinson.	Mr. Soames.
Sir John Dickson-Poynder.	Mr. Soares.
Major Dunne.	Mr. Solicitor-General.
Mr. Clement Edwards.	Sir Edward Strachey.
Mr. Denison Faber.	Mr. Verney.
Sir Walter Foster.	Mr. Walker.
Mr. Ernest Gardner.	Mr. Dudley Ward.
Mr. Gill.	Mr. Warner.
Mr. Grant.	Mr. George White.
Mr. Gretton.	Mr. Tyson Wilson.
Mr. Guest.	Lord Willoughby de Eresby.
Mr. Harcourt.	Mr. Winfrey.
Mr. Hodge.	Mr. Young.
Mr. Leif Jones.	

SMALL HOLDINGS AND ALLOTMENTS BILL.

Clause 2, further considered.

Amendment again proposed, in page 2, line 13, to leave out Subsection (3)—(*Mr. Masterman*).—Question put, “That the word ‘The’ at the beginning of the subsection stand part of the Clause.”—The Committee divided :

Ayes, 55.

Mr. William Abraham (*Cork*).
 Mr. Alden.
 Mr. Beckett.
 Sir John Bethell.
 Sir Alfred Billson.
 Mr. Bramsdon.
 Mr. Burns.
 Mr. Carlile.
 Mr. Cave.
 Sir Francis Channing.
 Mr. Chaplin.
 Mr. Cheetham.
 Sir Randal Cremer.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Clement Edwards.
 Mr. Denison Faber.
 Sir Walter Foster.
 Mr. Ernest Gardner.
 Mr. Gill.
 Mr. Grant.
 Mr. Gretton.
 Mr. Guest.
 Mr. Harcourt.
 Mr. Hodge.
 Mr. Leif Jones.
 Mr. Jowett.
 Mr. Lambert.
 Mr. Lehmann.
 Colonel Long.
 Mr. Mansfield.
 Mr. Montagu.
 Viscount Morpeth.
 Mr. Napier.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. William Redmond.
 Mr. Rees.
 Sir George Scott Robertson.

Noes, 7.

Mr. Hicks Beach.
 Mr. Bridgeman.
 Mr. Jesse Collings.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Soares.
 Mr. George White.

Ayes—continued.

Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soames.
 Mr. Solicitor-General.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Tyson Wilson.
 Lord Willoughby de Eresby.
 Mr. Winfrey.
 Mr. Young.

An Amendment made, in page 2, line 14, by leaving out the words "council of that county," and inserting the word "Board"—(*Mr. Harcourt*)—instead thereof.

Another Amendment made, in page 2, line 15, by leaving out the words "the report"—(*Mr. Hicks Beach*).

Another Amendment made, in page 2, line 15, by leaving out all the words from the word "whether" to the word "it," in line 17—(*Mr. Harcourt*).

Another Amendment proposed, in page 2, line 19, to leave out all the words from the word "and" to the end of the Clause, inclusive—(*Viscount Morpeth*).—Question, "That the word 'and' stand part of the Clause"—put, and *agreed to*.

Another Amendment proposed, in page 2, line 20, at the end of the Clause, to add the words:

"(4) If in the course of their inquiries the Commissioners receive any information as to the existence of a demand for allotments they shall communicate the information to the council of the county and of the borough urban district or parish concerned"

—(*Mr. Harcourt*).—Question put, "That those words be there added."—The Committee divided:

Ayes, 44.

Mr. William Abraham (*Cork*).
 Mr. Alden.
 Sir John Bethell.
 Sir Alfred Billson.
 Sir Francis Channing.
 Mr. Cheetham.
 Mr. Jesse Collings.
 Sir Randal Cremer.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Clement Edwards.
 Sir Walter Foster.
 Mr. Gill.
 Mr. Grant.
 Mr. Harcourt.

Noes, 9.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Cave.
 Mr. Chaplin.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Colonel Long.

Ayes—*continued.*

Mr. Leif Jones.
 Mr. Jowett.
 Mr. Lehmann.
 Mr. Mansfield.
 Mr. Masterman.
 Mr. Montagu.
 Viscount Morpeth.
 Mr. Morrell.
 Mr. Napier.
 Mr. Nicholls.
 Mr. William Redmond.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soames.
 Mr. Solicitor-General.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. George White.
 Mr. Tyson Wilson.
 Mr. Winfrey.
 Mr. Young.

Motion made, and Question, "That the Committee do continue to sit this day, notwithstanding the sitting of the House"—(*Mr. Harcourt*)—put, and *agreed to.*

Clause, as amended, *agreed to.*

Clause 3.

Amendment proposed, in page 2, line 21, to leave out Subsection (1) in order to insert the following new subsection.

"(1) When the Board state or the county council are of opinion that it is desirable that a scheme should be made, the county council may prepare one or more draft schemes for the provision of small holdings in their county"

—(*Viscount Morpeth*)—instead thereof.—Question put, "That the words 'Where the' at the beginning of the subsection stand part of the Clause."—The Committee divided:

Ayes, 34.

Sir John Bethell.
 Sir Alfred Billson.
 Sir Francis Channing.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Clement Edwards.
 Sir Walter Foster.
 Mr. Grant.
 Mr. Harcourt.
 Mr. Jowett.

Noes, 10.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Carlile.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Colonel Long.
 Viscount Morpeth.

Ayes—continued.

Mr. Lehmann.
 Mr. Mansfield.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Napier.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soames.
 Mr. Soares.
 Mr. Solicitor-General.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. George White.
 Mr. Tyson Wilson.
 Mr. Winfrey.

An Amendment made, in page 2, line 21, by leaving out the words "Commissioners report," and inserting the words "Board after considering the Report and such representations as aforesaid as respects any county are of opinion"—(*Mr. Harcourt*)—instead thereof.

Another Amendment proposed in page 2, line 22, after the word "made," to insert the words "the Board shall forward the Report of the Commissioners to the county council and"—(*Mr. Harcourt*).

Question proposed, "That those words be there inserted."

An Amendment made to the proposed Amendment, after the word "Commissioners," by inserting the words "with such modifications (if any) as the Board think desirable"—(*Mr. Chaplin*).—Question, "That the proposed Amendment, as amended, be there inserted,"—put, and *agreed to*.

Another Amendment proposed, in page 2, line 22, to leave out the words "it shall be the duty of"—(*Mr. Chaplin*).—Question put, "That the words proposed to be left out stand part of the Clause."—The Committee divided :

Ayes, 37.

Mr. Alden.
 Sir John Bethell.
 Sir Alfred Billson.
 Sir Francis Channing.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Clement Edwards.
 Mr. Ernest Gardner.
 Mr. Grant.
 Mr. Harcourt.
 Mr. Leif Jones.
 Mr. Jowett.
 Mr. Lehmann.

Noes, 9.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Carlile.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Denison Faber.
 Mr. Gretton.
 Colonel Long.
 Viscount Morpeth.

Ayes—continued.

Mr. Mansfield.
 Mr. Masterman.
 Mr. Montagu.
 Mr. Morrell.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soames.
 Mr. Soares.
 Mr. Solicitor-General.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. George White.
 Mr. Tyson Wilson.
 Mr. Winfrey.

Another Amendment proposed, in page 2, line 22, after the word "shall," to insert the words "when the land to be acquired for small holdings is situated either within the area or not more than a mile without the area of a borough council be the duty of such borough council and in other cases it shall"—(*Mr. Soares*).—Question proposed, "That those words be there inserted."

Amendment proposed to the proposed Amendment, after the word "duty," to insert the words "upon receiving the sanction of the Board of Agriculture"—(*Mr. Nussey*).—Question proposed, "That those words be there inserted in the proposed Amendment."

Amendment to the Amendment, by leave, *withdrawn*.

Question again proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 2, lines 23 and 24, to leave out the words "to give effect to the report," and insert the words "for the provision of small holdings in their county"—(*Mr. Hicks Beach*)—instead thereof.—Question, "That the words proposed to be left out stand part of the Clause,"—put, and *agreed to*.

Another Amendment proposed, in page 2, line 24, to leave out all the words after the word "report" to the word "report" in line 26 (inclusive), in order to insert the words "and to inform the Board and the Commissioners at the earliest possible opportunity whether they will undertake to carry out this duty, having due regard to the proposals of the Commissioners indicated in their report"—(*Mr. Verney*)—instead thereof.—Question, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

[Adjourned till Thursday next, at half-past eleven o'clock.]

Thursday, 4th July, 1907.

MEMBERS PRESENT :

Mr. STUART-WORTLEY in the Chair.

Mr. Alden.	Mr. Harcourt.
Mr. Harmood-Banner.	Mr. T. M. Healy.
Mr. Barran.	Mr. Leif Jones.
Mr. Hicks Beach.	Mr. Lane-Fox.
Mr. Beckett.	Colonel Long.
Sir John Bethell.	Mr. Masterman.
Sir Alfred Billson.	Mr. Montagu.
Mr. Bramsdon.	Viscount Morpeth.
Mr. Bridgeman.	Mr. Morrell.
Mr. Burns.	Mr. Nicholls.
Mr. Carlile.	Mr. Nussey.
Sir Francis Channing.	Mr. William Priestley.
Mr. Chaplin.	Mr. Rees.
Mr. Cheetham.	Sir George Scott Robertson.
Mr. Jesse Collings.	Mr. Rogers.
Sir Randal Cremer.	Mr. Rowlands.
Mr. Cullinan.	Mr. Silcock.
Mr. Ellis Davies.	Mr. Soares.
Mr. Dickinson.	Mr. Solicitor-General.
Sir John Dickson-Poynder.	Sir Edward Strachey.
Major Dunne.	Mr. Verney.
Mr. Clement Edwards.	Mr. Walker.
Mr. Essex.	Mr. Dudley Ward.
Mr. Denison Faber.	Mr. Warner.
Mr. Ernest Gardner.	Mr. Wedgwood.
Mr. Gill.	Mr. Tyson Wilson.
Mr. Grant.	Lord Willoughby de Eresby.
Mr. Gretton.	Mr. Winfrey.
Mr. Guest.	Mr. Young.

SMALL HOLDINGS AND ALLOTMENTS BILL.

Clause 3, further considered.

Another Amendment made in page 2, line 24, after the word "Report," by inserting the words "with such modifications (if any) as aforesaid"—(*Mr. Gretton*).

Another Amendment made, in page 2, line 27, after the word "Council," by inserting the words "decline to undertake this duty or"—(*Mr. Verney*).

Another Amendment made, in page 2, line 28, after the word "Report," by inserting the words "or within such extended time as may be allowed by the Board"—(*Mr. Chaplin*).

Another Amendment made in page 2, line 29, by leaving out the word "Commissioners," and inserting the word "Board"—(*Mr. Harcourt*)—instead thereof.

Another Amendment made, in page 2, line 29, by leaving out the words "adequate to the needs of the county," and inserting the word "desirable"—(*Viscount Morpeth*)—instead thereof.

Another Amendment made, in page 2, line 30, by leaving out the words "Commissioners may themselves," and inserting the words "Board may direct the Commissioners themselves to"—(*Mr. Harcourt*)—instead thereof.

Another Amendment proposed, in page 2, line 36, after the word "provided," to insert the words "and the estimated initial cost of putting such schemes into operation"—(*Mr. Nussey*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 2, line 38, after the word "holdings," to insert the words "whether already in existence or"—(*Mr. Hicks Beach*).—Question put, "That those words be there inserted."—The Committee divided:

Ayes, 14.

Mr. Harmood-Banner.
Mr. Hicks Beach.
Mr. Bridgeman.
Mr. Carlile.
Sir Francis Channing.
Mr. Chaplin.
Mr. Ellis Davies.
Mr. Ernest Gardner.
Mr. Gill.
Mr. Gretton.
Mr. Guest.
Mr. Leif Jones.
Viscount Morpeth.
Mr. Wedgwood.

Noes, 36.

Mr. Beckett.
Sir John Bethell.
Sir Alfred Billson.
Mr. Bramsdon.
Mr. Burns.
Mr. Cheetham.
Mr. Jesse Collings.
Sir Randall Cremer.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Denison Faber.
Mr. Grant.
Mr. Harcourt.

Noes—*continued*.

Mr. Lane-Fox.
 Colonel Long.
 Mr. Morrell.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. William Priestley.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soares.
 Mr. Solicitor-General.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Tyson Wilson.
 Lord Willoughby de Eresby.
 Mr. Winfrey.
 Mr. Young.

Another Amendment proposed in page 2, line 41, after the word "purpose," to insert the words "(E) the provision to be made for compensation to agricultural labourers thrown out of employment in consequence of the operation of this Act"—(*Mr. Gretton*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 13.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Carlile.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Mr. Lane-Fox.
 Colonel Long.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

Noes, 38.

Mr. Alden.
 Sir John Bethell.
 Sir Alfred Billson.
 Mr. Bramsdon.
 Mr. Burns.
 Sir Francis Channing.
 Mr. Cheetham.
 Sir Randal Cremer.
 Mr. Cullinan.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Gill.
 Mr. Grant.
 Mr. Guest.
 Mr. Harcourt.
 Mr. Leif Jones.
 Mr. Montagu.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. William Priestley.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soares.

Noes—*continued*.

Mr. Solicitor-General.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Wedgwood.
 Mr. Tyson Wilson.
 Mr. Winfrey.
 Mr. Young.

Another Amendment proposed, in page 3, line 1, to leave out Subsection (D)—(*Mr. Lane-Fox*).—Question proposed, “That Subsection (D) stand part of the Clause.”

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 3, line 2, after the word “effect,” to insert the words :

“(E) Whether and to what extent buildings or fencing should be built or acquired by the council and at what estimated cost”

—(*Mr. Bridgeman*).—Question put, “That those words be there inserted.”—The Committee divided :

Ayes, 12.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Chaplin.
 Mr. Cheetham.
 Mr. Jesse Collings.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Mr. Lane-Fox.
 Mr. Wedgwood.
 Lord Willoughby de Eresby.

Noes, 33.

Mr. Alden.
 Mr. Barran.
 Sir John Bethell.
 Sir Alfred Billson.
 Mr. Bramsdon.
 Mr. Burns.
 Sir Francis Channing.
 Sir Randal Cremer.
 Mr. Cullinan.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Gill.
 Mr. Grant.
 Mr. Guest.
 Mr. Harcourt.
 Mr. Leif Jones.
 Mr. Montagu.
 Mr. Nicholls.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Solicitor-General.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Tyson Wilson.
 Mr. Winfrey.
 Mr. Younger.

Another Amendment proposed, in page 3, line 2, after the word "effect," to insert the words :

"(E) The maximum sum of money to be expended in acquiring and adapting the land for small holdings"

—(*Mr. Chaplin*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 8.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Chaplin.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Grettou.
Mr. Lane-Fox.
Lord Willoughby de Eresby.

Noes, 26.

Mr. Barran.
Mr. Burns.
Sir Francis Channing.
Sir Randal Cremer.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Gill.
Mr. Guest.
Mr. Harcourt.
Mr. Leif Jones.
Mr. Masterman.
Mr. Montagu.
Mr. Nicholls.
Mr. Rees.
Mr. Rogers.
Mr. Silcock.
Mr. Solicitor-General.
Sir Edward Strachey.
Mr. Verney.
Mr. Dudley Ward.
Mr. Warner.
Mr. Tyson Wilson.
Mr. Winfrey.
Mr. Young.

Another Amendment made, in page 3, line 7, after the word "report," by inserting the words "or the county councils concerned are of opinion"—(*Mr. Hicks Beach*).

Clause, as amended, *agreed to*

Motion made and Question, "That the Committee do continue to sit this day notwithstanding the sitting of the House"—(*Mr. Harcourt*),—put, and *agreed to*.

Clause 4.

Amendment proposed, in page 3, line 14, to leave out the word "and," in order to insert the words "who shall have such time as the Board consider necessary to consider it before"—(*Viscount Morpeth*).—Question, "That the word 'and' stand part of the Clause,"—put and *agreed to*.

An Amendment made, in page 3, line 14, after the word "scheme," by inserting the words "and any modifications therein which the Board may propose to make"—(*Mr. Chaplin*).

Another Amendment proposed, in page 3, line 20, to leave out the word "shall," in order to insert the word "may"—(*Mr. Masterman*)—instead thereof.—Question proposed, "That the word 'shall' stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 3, line 20, to leave out all the words from the word "if" to the word "to," in line 21, in order to insert the words "there shall be any objection to the scheme"—(*Mr. Chaplin*)—instead thereof.—Question put, "That the words proposed to be left out stand part of the Clause."—The Committee divided :

Ayes, 21.

Mr. Barran.
Sir John Bethell.
Sir Alfred Billson.
Mr. Cullinan.
Mr. Dickinson.
Major Dunne.
Mr. Clement Edwards.
Mr. Essex.
Mr. Grant.
Mr. Guest.
Mr. Harcourt.
Mr. T. M. Healy.
Mr. Masterman.
Mr. Nussey.
Mr. Rogers.
Mr. Silcock.
Mr. Solicitor-General.
Mr. Walker.
Mr. Dudley Ward.
Mr. Tyson Wilson.
Mr. Winfrey.

Noes, 14.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Mr. Carlile.
Sir Francis Channing.
Mr. Chaplin.
Mr. Cheetham.
Mr. Jesse Collings.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Leif Jones.
Viscount Morpeth.
Lord Willoughby de Eresby.

Another Amendment made, in page 3, line 23, after the word "public," by inserting the word "local"—(*Mr. Chaplin*).

Another Amendment proposed, in page 3, line 23, to leave out all the words after the word "council" to the word "shall," in line 25, in order to insert the words "every person affected"—(*Mr. Hicks Beach*)—instead thereof.—Question, "That the words proposed to be left out stand part of the Clause,"—put, and *agreed to*.

Question put, "That Clause 4, as amended, stand part of the Bill."—The Committee divided :

Ayes, 25.

Mr. Barran.
Sir John Bethell.
Sir Alfred Billson.
Sir Francis Channing.
Mr. Cheetham.
Mr. Cullinan.
Mr. Dickinson.
Major Dunne.
Mr. Clement Edwards.
Mr. Essex.
Mr. Grant.
Mr. Guest.
Mr. Harcourt.
Mr. Leif Jones.
Mr. Masterman.
Mr. Nussey.
Mr. Rogers.
Mr. Rowlands.

Noes 10.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Mr. Carlile.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Viscount Morpeth.

Ayes—continued.

Mr. Silcock.
 Mr. Solicitor-General.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Tyson Wilson.
 Mr. Winfrey.

[Adjourned till Tuesday next, at half-past 11 o'clock.]

Tuesday, 9th July, 1907.

MEMBERS PRESENT:

Mr. STUART-WORTLEY in the Chair.

Mr. Barran.
 Mr. Hicks Beach.
 Mr. Beckett.
 Sir John Bethell.
 Sir Alfred Billson.
 Mr. Brace.
 Mr. Bramsdon.
 Mr. Bridgeman.
 Mr. Burns.
 Mr. Carlile.
 Mr. Cave.
 Sir Francis Channing.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Courthope.
 Sir Randal Cremer.
 Mr. Cullinan.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Essex.
 Mr. Denison Faber.
 Sir Walter Foster.
 Mr. Ernest Gardner.
 Mr. Corrie Grant.
 Mr. Gretton.
 Mr. Guest.
 Mr. Harcourt.
 Mr. Hayden.
 Mr. Leif Jones.
 Mr. Lambert.

Mr. Lane-Fox.
 Mr. Lehmann.
 Colonel Long.
 Mr. Mansfield.
 Mr. Masterman.
 Mr. Montagu.
 Viscount Morpeth.
 Mr. Morrell.
 Mr. Napier.
 Mr. Pickersgill.
 Mr. William Priestley.
 Mr. William Redmond.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soames.
 Mr. Soares.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Vivian.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Wedgwood.
 Mr. George White.
 Mr. Tyson Wilson.
 Lord Willoughby de Eresby.
 Mr. Young.

SMALL HOLDINGS AND ALLOTMENTS BILL.

Clause 5.

Amendment proposed, in page 3, line 31, to leave out the words "It shall be the duty of," in order to insert the words "For the purpose of enabling"—(*Mr. Chaplin*)—instead thereof.—Question put, "That the words proposed to be left out stand part of the Clause.—The Committee divided :

Ayes, 33.

Sir John Bethell.
 Sir Alfred Billson.
 Mr. Brace.
 Mr. Bramsdon.
 Sir Francis Channing.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Essex.
 Sir Walter Foster.
 Mr. Corrie Grant.
 Mr. Guest.
 Mr. Harcourt.
 Mr. Leif Jones.
 Mr. Lehmann.
 Mr. Mansfield.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Napier.
 Mr. Pickersgill.
 Mr. William Priestley.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Soames.
 Mr. Soares.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Tyson Wilson.
 Mr. Young.

Noes, 15.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Carlile.
 Mr. Cave.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Courthope.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Mr. Lane-Fox.
 Colonel Long.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

An Amendment made, in page 3, line 33, after the word "scheme," by inserting the words "or within such further time as may be allowed by the Board"—(*Mr. Cave*).

Another Amendment proposed, in page 3, line 35, after the word "Act," to insert the words :

"Provided that all expenses reasonably incurred by the council in carrying any

scheme into effect, and not recouped out of the purchase-money or rent of the land sold or let thereunder, shall be repaid to the council by the Board out of the Small Holdings Account”

—(*Mr. Chaplin*).—Question proposed, “That those words be there inserted.”

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 3, line 35, after the word “Act,” to insert the words :

“Provided that if, at the end of any year, a county council can show, to the satisfaction of the Commissioners, that the carrying into effect of such scheme has involved a net loss to the council, the Board shall, on demand, repay to the council a sum equivalent to two-thirds of such loss”

—(*Sir John Dickson-Poynder*).—Question proposed, “That those words be there inserted.”

Amendment proposed to the proposed Amendment, in line 1, to leave out the words “at the end of any year”—(*Mr. Chaplin*).—Question proposed, “That the words proposed to be left out stand part of the proposed Amendment.”

Amendment to the Amendment, by leave, *withdrawn*.

Another Amendment proposed to the proposed Amendment, in line 4, to leave out the words “two-thirds of”—(*Mr. Gretton*).—Question, “That the words ‘two-thirds of’ stand part of the proposed Amendment,”—put, and *agreed to*.

Question put, “That the words ‘Provided that if, at the end of any year, a county council can show, to the satisfaction of the commissioners, that the carrying into effect of such scheme has involved a net loss to the council, the board shall, on demand, repay to the council a sum equivalent to two-thirds of such loss,’” be there inserted.—The Committee divided :

Ayes, 28.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Brace.
Mr. Bridgeman.
Mr. Carlile.
Mr. Cave.
Mr. Jesse Collings.
Mr. Courthope.
Mr. Dickinson.
Sir John Dickson-Poynder.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Leif Jones.
Mr. Lane-Fox.
Mr. Lehmann.
Colonel Long.
Mr. Masterman.
Mr. Montagu.
Viscount Morpeth.
Mr. Morrell.
Mr. Pickersgill.
Mr. William Priestley.
Mr. Soares.
Mr. Verney.
Mr. Walker.

Noes, 31.

Mr. Barran.
Sir John Bethell.
Sir Alfred Billson.
Mr. Bramsdon.
Mr. Burns.
Sir Francis Channing.
Sir Randal Cremer.
Mr. Cullinan.
Major Dunne.
Mr. Essex.
Sir Walter Foster.
Mr. Corrie Grant.
Mr. Guest.
Mr. Harcourt.
Mr. Hayden.
Mr. Lambert.
Mr. Mansfield.
Mr. William Redmond.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Silcock.
Mr. Soames.
Sir Edward Strachey.
Mr. Vivian.

Ayes—*continued*.

Mr. George White.
Lord Willoughby de Eresby.

Noes—*continued*.

Mr. Dudley Ward.
Mr. Warner.
Mr. Wedgwood.
Mr. Tyson Wilson.
Mr. Young.

Motion made and Question, "That the Committee do continue to sit this day notwithstanding the sitting of the House"—(*Mr. Harcourt*),—put, and *agreed to*.

Another Amendment proposed, in page 3, line 36, to leave out Subsection (2)—(*Mr. Chaplin*).—Question put, "That the words 'If the county council' at the beginning of the subsection stand part of the Clause."—The Committee divided:

Ayes, 27.

Mr. Barran.
Sir John Bethell.
Mr. Bramsdon.
Mr. Burns.
Sir Francis Channing.
Sir Randal Cremer.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Sir Walter Foster.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. Hayden.
Mr. Lehmann.
Mr. Mansfield.
Mr. Masterman.
Mr. Morrell.
Mr. Pickersgill.
Mr. Rogers.
Mr. Silcock.
Mr. Soames.
Sir Edward Strachey.
Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. George White.
Mr. Tyson Wilson.

Noes, 13.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Mr. Cave.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Courthope.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Lane-Fox.
Viscount Morpeth.
Lord Willoughby de Eresby.

Another Amendment proposed, in page 3, line 37, to leave out the word "shall," in order to insert the word "may"—(*Mr. Cave*)—instead thereof.—Question put, "That the word 'shall' stand part of the Clause."—The Committee divided:

Ayes, 37.

Mr. Barran.
Sir Alfred Billson.
Mr. Bramsdon.
Mr. Burns.
Sir Francis Channing.
Mr. Jesse Collings.
Sir Randal Cremer.
Mr. Cullinan.
Mr. Dickinson.
Sir John Dickson-Poynder.

Noes, 13.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Mr. Carlile.
Mr. Cave.
Mr. Chaplin.
Mr. Courthope.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.

Ayes—continued.

Major Dunne.
 Sir Walter Foster.
 Mr. Corrie Grant.
 Mr. Guest.
 Mr. Harcourt.
 Mr. Hayden.
 Mr. Leif Jones.
 Mr. Lehmann.
 Mr. Mansfield.
 Mr. Masterman.
 Mr. Montagu.
 Mr. Morrell.
 Mr. Pickersgill.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soames.
 Mr. Soares.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Vivian.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. George White.
 Mr. Tyson Wilson.

Noes—continued.

Mr. Lane-Fox.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

Another Amendment proposed, in page 3, line 37, to leave out the words "by order direct the Commissioners to"—(*Mr. Hicks Beach*).—Question, "That the words proposed to be left out stand part of the Clause,"—put, and *agreed to*.

Another Amendment proposed, in page 4, line 4, to leave out all the words from the word "Provided" to the word "Crown," in line 10, both inclusive—(*Mr. Bridgeman*).—Question put, "That the words proposed to be left out to the second word "the," in line 5, stand part of the Clause."—The Committee divided :

Ayes, 34.

Sir Alfred Billson.
 Mr. Brace.
 Mr. Bramsdon.
 Sir Francis Channing.
 Sir Randal Cremer.
 Mr. Cullinan.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Essex.
 Sir Walter Foster.
 Mr. Corrie Grant.
 Mr. Guest.
 Mr. Harcourt.
 Mr. Hayden.
 Mr. Leif Jones.
 Mr. Lehmann.
 Mr. Mansfield.
 Mr. Masterman.
 Mr. Montagu.

Noes, 14.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Carlile.
 Mr. Cave.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Courthope.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Mr. Lane-Fox.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

Ayes—*continued*.

Mr. Morrell.
 Mr. Pickersgill.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soares.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Vivian.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Wedgwood.
 Mr. George White.
 Mr. Tyson Wilson.

Another Amendment proposed, in page 4, line 5, after the second word "the," to insert the word "initial"—(*Viscount Morpeth*).—Question, "That the word 'initial' be there inserted,"—put, and *negatived*.

Another Amendment proposed, in page 4, line 6, to leave out all the words after the word "shall," to the end of the Clause, in order to insert the words "be paid out of the Small Holdings account"—(*Mr. Masterman*)—instead thereof.—Question put, "That the words proposed to be left out stand part of the Clause."—The Committee divided :

Ayes, 21.

Sir Alfred Billson.
 Mr. Brace.
 Sir Francis Channing.
 Sir Randal Cremer.
 Major Dunne.
 Mr. Essex.
 Sir Walter Foster.
 Mr. Corrie Grant.
 Mr. Guest.
 Mr. Harcourt.
 Mr. Lehmann.
 Mr. Mansfield.
 Mr. Morrell.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Vivian.
 Mr. Dudley Ward.
 Mr. Warner.

Noes, 16.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Carlile.
 Mr. Cave.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Courthope.
 Mr. Dickinson.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Mr. Lane-Fox.
 Mr. Masterman.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

Another Amendment made, in page 4, line 10, at the end of the Clause, by adding the words "and such sums as the Board certify to have been received by the Commissioners in respect of any land acquired shall be paid to the council"—(*Mr. Cave*)

Another Amendment proposed, after the word "council," at the end of the last Amendment, to add the words :

"(3) If it appears to the Board that the proceedings of the Commissioners under

this section have resulted or are likely to result in a loss, the Board may, with the consent of the Treasury, pay or undertake to pay out of the Small Holdings Account the whole or any part of that loss "

—(*Mr. Harcourt*).—Question proposed, "That those words be there added."

Amendment proposed to the proposed Amendment, in line 1, to leave out the words "proceedings of the Commissioners under this section have resulted or are," in order to insert the words "carrying out of a scheme under this Act has resulted or is"—(*Mr. Cave*)—instead thereof.—Question put, "That the words proposed to be left out stand part of the proposed Amendment."—The Committee divided :

Ayes, 21.

Sir Alfred Billson.
Mr. Brace.
Sir Francis Channing.
Sir Randal Cremer.
Mr. Essex.
Sir Walter Foster.
Mr. Corrie Grant.
Mr. Guest.
Mr. Harcourt.
Mr. Lehmann.
Mr. Mansfield.
Mr. Rees.
Mr. Rogers.
Mr. Rowlands.
Mr. Silcock.
Sir Edward Strachey.
Mr. Vivian.
Mr. Walker.
Mr. Dudley Ward.
Mr. Warner.
Mr. George White.

Noes, 22.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Mr. Carlile.
Mr. Cave.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Courthope.
Mr. Dickinson.
Sir John Dickson-Poynder.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Lane-Fox.
Mr. Masterman.
Mr. Montagu.
Viscount Morpeth.
Mr. Morrell.
Mr. Pickersgill.
Mr. Soares.
Mr. Verney.
Lord Willoughby de Eresby.

Question, "That those words be there inserted,"—put, and *agreed to*.

Question, "That the proposed Amendment, as amended, be there inserted,"—put, and *agreed to*.

Question put, "That Clause 5, as amended, stand part of the Bill."—The Committee divided :

Ayes, 29.

Sir Alfred Billson.
Sir Francis Channing.
Sir Randal Cremer.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Essex.
Sir Walter Foster.
Mr. Corrie Grant.
Mr. Guest.
Mr. Harcourt.
Mr. Lehmann.
Mr. Mansfield.
Mr. Masterman.
Mr. Montagu.
Mr. Morrell.

Noes, 14.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Mr. Carlile.
Mr. Cave.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Courthope.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Lane-Fox.
Viscount Morpeth.
Lord Willoughby de Eresby.

Ayes — continued.

Mr. Pickersgill.
Mr. Rees.
Mr. Rogers.
Mr. Rowlands.
Mr. Silcock.
Mr. Soares.
Sir Edward Strachey.
Mr. Verney.
Mr. Vivian.
Mr. Walker.
Mr. Dudley Ward.
Mr. Warner.
Mr. Wedgwood.
Mr. George White.

[Adjourned till Thursday next at half-past eleven o'clock.]

Thursday, 11th July, 1907.

MEMBERS PRESENT :

Mr. STUART-WORTLEY in the Chair.

Mr. Alden.	Mr. Lane-Fox.
Mr. Hicks Beach.	Mr. Lehmann.
Mr. Beckett.	Mr. Mansfield.
Sir John Bethell.	Mr. Masterman.
Mr. Bridgeman.	Viscount Morpeth.
Mr. Burns.	Mr. Napier.
Mr. Carlile.	Mr. Nicholls.
Sir Francis Channing.	Mr. Pickersgill.
Mr. Chaplin.	Mr. William Priestley.
Mr. Cheetham.	Mr. William Redmond.
Mr. Jesse Collings.	Mr. Rees.
Mr. Courthope.	Sir George Scott Robertson.
Sir Randal Cremer.	Mr. Rogers.
Mr. Cullinan.	Mr. Rowlands.
Mr. Ellis Davis.	Mr. Silcock.
Mr. Dickinson.	Mr. Soames.
Sir John Dickson-Poynder.	Mr. Soares.
Major Dunne.	Sir Edward Strachey.
Mr. Denison Faber.	Mr. Verney.
Sir Walter Foster.	Mr. Walker.
Mr. Ernest Gardner.	Mr. Dudley Ward.
Mr. Gill.	Mr. Warner.
Mr. Corrie Grant.	Mr. Wedgwood.
Mr. Gretton.	Mr. George White.
Mr. Harcourt.	Mr. Osmond Williams.
Mr. Hayden.	Mr. Tyson Wilson.
Mr. Leif Jones.	Lord Willoughby de Eresby.
Mr. Jowett.	Mr. Winfrey.
Mr. Lambert.	Mr. Young.

SMALL HOLDINGS AND ALLOTMENTS BILL.

Clause 6.

Amendment proposed, in page 4, line 13, after the word "persons," to insert the words "of the labouring population resident in their own county and"—(*Mr. Chaplin*).—Question put, "That those words be there inserted."—The Committee divided:

Ayes, 7.

Mr. Hicks Beach.
Mr. Carlile.
Mr. Chaplin.
Mr Courthope.
Mr. Ernest Gardner.
Mr. Gretton.
Lord Willoughby de'Eresby.

Noes, 44.

Mr. Beckett.
Mr. Bridgeman.
Mr. Burns.
Sir Francis Channing.
Mr. Cheetham.
Mr. Jesse Collings.
Mr. Cullinan.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Denison Faber.
Mr. Gill.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. Hayden.
Mr. Leif Jones.
Mr. Jowett.
Mr. Lambert.
Mr. Lane-Fox.
Mr. Lehmann.
Mr. Mansfield.
Mr. Masterman.
Viscount Morpeth.
Mr. Napier.
Mr. Nicholls.
Mr. Pickersgill.
Mr. William Priestley.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Silcock.
Mr Soames.
Mr. Soares.
Mr. Verney.
Mr. Dudley Ward.
Mr. Warner.
Mr. Wedgwood.
Mr. George White.
Mr. Osmond Williams.

Noes—*continued*.

Mr. Tyson Wilson.
Mr. Winfrey.
Mr. Young.

Another Amendment proposed, in page 4, line 13, after the word "lease," to insert the words "or purchase"—(*Mr. Jesse Collings*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 18.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Mr. Carlile.
Sir Francis Channing.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Courthope.
Mr. Ellis Davies.
Sir John Dickson-Poynder.
Mr. Denison Faber.
Mr. Gretton.
Mr. Lane-Fox.
Viscount Morpeth.
Mr. Napier.
Mr. Scares.
Mr. Osmond Williams.
Lord Willoughby de Eresby.

Noes, 37.

Sir John Bethell.
Mr. Burns.
Mr. Cheetham.
Sir Randal Cremer.
Mr. Cullinan.
Mr. Dickinson.
Mr. Clement Edwards.
Sir Walter Foster.
Mr. Gill.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. Hayden.
Mr. Leif Jones.
Mr. Jowett.
Mr. Lambert.
Mr. Lehmann.
Mr. Mansfield.
Mr. Masterman.
Mr. Nicholls.
Mr. Pickersgill.
Mr. William Priestley.
Mr. William Redmond.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Silcock.
Mr. Soames.
Sir Edward Strachey.
Mr. Verney.
Mr. Dudley Ward.
Mr. Warner.
Mr. Wedgwood.
Mr. George White.
Mr. Tyson Wilson.
Mr. Winfrey.
Mr. Young.

Motion made and Question, "That the Committee do continue to sit this day notwithstanding the sitting of the House"—(*Mr. Harcourt*).—put, and *agreed to*.

Another Amendment proposed, in page 4, line 14, to leave out the word "whether"—(*Mr. Chaplin*).—Question put, "That the word 'whether' stand part of the Clause."—The Committee divided :

Ayes, 31.

Mr. Alden.
Mr. Burns.

Noes, 8.

Mr. Hicks Beach.
Mr. Beckett.

Ayes—continued.

Sir Francis Channing.
 Mr. Cheetham.
 Mr. Jesse Collings.
 Sir Randal Cremer.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Major Dunne.
 Sir Walter Foster.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Mr. Leif Jones.
 Mr. Lehmann.
 Mr. Mansfield.
 Mr. Masterman.
 Mr. Nicholls.
 Mr. Pickersgill.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soames.
 Mr. Soares.
 Sir Edward Strachey.
 Mr. Dudley Ward.
 Mr. Wedgwood.
 Mr. George White.
 Mr. Tyson Wilson.
 Mr. Winfrey.

Noes—continued.

Mr. Chaplin.
 Mr. Courthope.
 Mr. Denison Faber.
 Mr. Gretton.
 Mr. Lane-Fox.
 Viscount Morpeth.

Another Amendment proposed, in page 4, line 20, to leave out the word "acquire," in order to insert the word "purchase"—(*Mr. Chaplin*)—instead thereof.—Question put, "That the word 'acquire' stand part of the Clause."—The Committee divided:

Ayes, 31.

Sir John Bethell.
 Mr. Burns.
 Sir Francis Channing.
 Mr. Cheetham.
 Sir Randal Cremer.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Mr. Leif Jones.
 Mr. Jowett.
 Mr. Lambert.
 Mr. Lehmann.
 Mr. Mansfield.
 Mr. Masterman.
 Mr. Nicholls.
 Mr. Pickersgill.
 Mr. William Priestley.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.

Noes, 9.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Denison Faber.
 Mr. Lane-Fox.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

Ayes—continued.

Mr. Silcock.
 Mr. Soames.
 Mr. Soares.
 Sir Edward Strachey.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Tyson Wilson.
 Mr. Winfrey.

Another Amendment proposed, in page 4, line 19, after the word "land," to insert the words "within their county"—(*Mr. Denison Faber*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 10.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Denison Faber.
 Mr. Gretton.
 Mr. Lane-Fox.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

Noes, 32.

Sir John Bethell.
 Mr. Burns.
 Sir Randal Cremer.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Major Dunne.
 Sir Walter Foster.
 Mr. Gill.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Mr. Leif Jones.
 Mr. Jowett.
 Mr. Lambert.
 Mr. Lehmann.
 Mr. Mansfield.
 Mr. Masterman.
 Mr. Nicholls.
 Mr. Pickersgill.
 Mr. William Priestley.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soames.
 Mr. Soares.
 Sir Edward Strachey.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Tyson Wilson.
 Mr. Winfrey.
 Mr. Young.

Another Amendment proposed, in page 4, line 21, at the end of the Clause, to add the words :

"(3) The amount to be paid for the land purchased by the County Council by agreement, or the amount of rent for the land taken on lease shall be approved by the Board of Agriculture"

—(*Mr. Masterman*).—Question put, "That those words be there added."—The Committee divided :

Ayes, 11.

Sir Francis Channing.
 Mr. Cheetham.
 Mr. Dickinson.
 Mr. Gill.
 Mr. Leif Jones.
 Mr. Jowett.
 Mr. Mansfield.
 Mr. Masterman.
 Mr. Nicholls.
 Sir George Scott Robertson.
 Mr. Wedgwood.

Noes, 35.

Mr. Hicks Beach.
 Mr. Beckett.
 Sir John Bethell.
 Mr. Bridgeman.
 Mr. Burns.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Sir Randal Cremer.
 Mr. Cullinan.
 Mr. Ellis Davies.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Denison Faber.
 Mr. Corrie Grant.
 Mr. Gretton.
 Mr. Harcourt.
 Mr. Lambert.
 Mr. Lane-Fox.
 Mr. Lehmann.
 Viscount Morpeth.
 Mr. Pickersgill.
 Mr. William Priestley.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soames.
 Mr. Soares.
 Sir Edward Strachey.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Tyson Wilson.
 Lord Willoughby de Eresby.
 Mr. Winfrey.
 Mr. Young.

Question put, "That Clause 6 stand part of the Bill."—The Committee divided :

Ayes, 35.

Sir John Bethell.
 Mr. Burns.
 Sir Francis Channing.
 Mr. Cheetham.
 Sir Randal Cremer.
 Mr. Cullinan.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Gill.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Mr. Leif Jones.
 Mr. Jowett.
 Mr. Lambert.
 Mr. Lehmann.
 Mr. Mansfield.
 Mr. Masterman.

Noes, 10.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Denison Faber.
 Mr. Gretton.
 Mr. Lane-Fox.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

Ayes—continued.

Mr. Nicholls.
Mr. Pickersgill.
Mr. William Priestley.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Silcock.
Mr. Soames.
Mr. Soares.
Sir Edward Strachey.
Mr. Walker.
Mr. Dudley Ward.
Mr. Warner.
Mr. Tyson Wilson.
Mr. Winfrey.
Mr. Young.

Clause 7, *agreed to.*

Clause 8.

Amendment proposed, in page 4, line 27, to leave out Subsection (1)—(*Mr. Chaplin*).—Question proposed, “That the words ‘(1) The Local Government Board may’ stand part of the Clause.”

Debate arising.

[Adjourned till Tuesday next, at half-past eleven o'clock.]

Tuesday, 16th July, 1907.

MEMBERS PRESENT:

Mr. STUART WORTLEY in the Chair.

Mr. Alden.	Mr. Harcourt.
Mr. Harwood-Banner.	Mr. Harrison-Broadley.
Mr. Hicks Beach.	Mr. Hayden.
Mr. Beckett.	Mr. Howard.
Sir John Bethell.	Mr. Leif Jones.
Mr. Brace.	Mr. Lane-Fox.
Mr. Bramsdon.	Mr. Lehmann.
Mr. Bridgeman.	Colonel Long.
Mr. Burns.	Mr. Mansfield.
Mr. Cave.	Mr. Masterman.
Sir Francis Channing.	Viscount Morpeth.
Mr. Chaplin.	Mr. Napier.
Mr. Cheetham.	Mr. William Priestley.
Mr. Jesse Collings.	Mr. Rees.
Mr. Courthope.	Sir George Scott Robertson.
Sir Randal Cremer.	Mr. Rogers.
Mr. Cullinan.	Mr. Rowlands.
Mr. Ellis Davies.	Mr. Soames.
Mr. Dickinson.	Mr. Soares.
Sir John Dickson-Poynder.	Sir Edward Strachey.
Sir Frederick Dixon-Hartland.	Mr. Verney.
Major Dunne.	Mr. Vivian.
Mr. Essex.	Mr. Walker.
Mr. Denison Faber.	Mr. Dudley Ward.
Sir Walter Foster.	Mr. Warner.
Mr. Ernest Gardner.	Mr. George White.
Mr. Gill.	Mr. Tyson Wilson.
Mr. Corrie Grant.	Lord Willoughby de Eresby.
Mr. Gretton.	Mr. Winfrey.
Mr. Guest.	Mr. Young.

SMALL HOLDINGS AND ALLOTMENTS BILL.

Clause 8 further considered.

Amendment again proposed, in page 4, line 27, to leave out Subsection (1)—(*Mr. Chaplin*).—Question put, “That the words ‘The Local Government Board may’ stand part of the Clause.”—The Committee divided :

Ayes, 8.

Mr. Jesse Collings.
Mr. Ellis Davies.
Mr. Dickinson.
Sir Walter Foster.
Mr. Gill.
Mr. Masterman.
Sir George Scott Robertson.
Mr. Tyson Wilson.

Noes, 35.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bramsdon.
Mr. Bridgeman.
Mr. Burns.
Mr. Chaplin.
Mr. Cheetham.
Mr. Courthope.
Sir John Dickson-Poynder.
Sir Frederick Dixon-Hartland.
Mr. Essex.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Corrie Grant.
Mr. Gretton.
Mr. Harcourt.
Mr. Harrison-Broadley.
Mr. Howard.
Mr. Leif Jones.
Mr. Lane-Fox.
Mr. Lehmann.
Colonel Long.
Viscount Morpeth.
Mr. Napier.
Mr. Rogers.
Mr. Rowlands.
Mr. Soares.
Sir Edward Strachey.
Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. Warner.
Mr. George White.
Mr. Winfrey.
Mr. Young.

Remaining words omitted.

Another Amendment made, in page 4, lines 34 and 35, by leaving out the words “the said subsection,” and inserting the words “Subsection (2) of section eighteen of the Small Holdings Act, 1892 ”—(*Mr. Chaplin*)—instead thereof.

Another Amendment made, in page 4, line 39, by leaving out the words “this part of”—(*Mr. Harcourt*).

Clause, as amended, *agreed to*.

Clause 9.

Amendment proposed, in page 5, line 5, after the word "holdings," to insert the words "or any area of land suitable for the formation of small holdings"—(*Mr. Courthope*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 5, line 5, to leave out the word "association," and insert the words "society registered under the Industrial and Provident Societies Acts"—(*Sir Francis Channing*)—instead thereof.—Question proposed, "That the word 'association' stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 5, line 6, to leave out all the words from the word "holdings" to the end of the Clause—(*Mr. Dickinson*).—Question, "That the words proposed to be left out to the word 'prohibited,' in line 8, inclusive, stand part of the Clause,"—put, and *agreed to*.

Another Amendment proposed, in page 5, line 8, to leave out the words "or restricted"—(*Mr. Chaplin*).—Question put, "That the words 'or restricted' stand part of the Clause."—The Committee divided :

Ayes, 43.

Sir John Bethell.
Mr. Brace.
Mr. Bramsdon.
Mr. Bridgeman.
Mr. Burns.
Sir Francis Channing.
Mr. Cheetham.
Mr. Courthope.
Mr. Cullinan.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Essex.
Mr. Denison Faber.
Sir Walter Foster.
Mr. Gill.
Mr. Corrie Grant.
Mr. Guest.
Mr. Harcourt.
Mr. Hayden.
Mr. Howard.
Mr. Leif Jones.
Mr. Lehmann.
Colonel Long.
Mr. Mansfield.
Mr. Masterman.
Mr. Napier.
Mr. William Priestley.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Soames.
Mr. Soares.
Sir Edward Strachey.

Noes, 10.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Harrison-Broadley.
Mr. Lane-Fox.
Viscount Morpeth.
Lord Willoughby de Eresby.

Ayes—continued.

Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. Warner.
Mr. George White.
Mr. Tyson Wilson.
Mr. Winfrey.
Mr. Young.

Another Amendment proposed, in page 5, line 8, after the word "restricted," to add the words "to not more than five per cent. on the paid-up capital value of such association"—(*Sir Francis Channing*).—Question put, "That those words be there added."—The Committee divided :

Ayes, 20.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Sir Francis Channing.
Mr. Chaplin.
Mr. Cheetham.
Mr. Courthope.
Sir Frederick Dixon-Hartland.
Mr. Ernest Gardner.
Mr. Gill.
Mr. Gretton.
Mr. Guest.
Mr. Harrison-Broadley.
Mr. Lane-Fox.
Colonel Long.
Mr. Mansfield.
Viscount Morpeth.
Mr. Walker.
Mr. Tyson Wilson.
Lord Willoughby de Eresby.

Noes, 32.

Sir John Bethell
Mr. Brace.
Mr. Bramsdon.
Mr. Burns.
Mr. Cullinan.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Essex.
Sir Walter Foster.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. Hayden.
Mr. Howard.
Mr. Leif Jones.
Mr. Lehmann.
Mr. Masterman.
Mr. Napier.
Mr. William Priestley.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Soames.
Mr. Soares.
Sir Edward Strachey.
Mr. Verney.
Mr. Dudley Ward.
Mr. Warner.
Mr. George White.
Mr. Winfrey.
Mr. Young.

Question put, "That Clause 9 stand part of the Bill."—The Committee divided :

Ayes, 42.

Sir John Bethell.
Mr. Brace.
Mr. Bramsdon.
Mr. Burns.
Sir Francis Channing.

Noes, 15.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Mr. Cave.
Mr. Chaplin.

Ayes—*continued*.

Mr. Cheetham.
 Mr. Courthope.
 Sir Randal Cremer.
 Mr. Cullinan.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Essex.
 Sir Walter Foster.
 Mr. Gill.
 Mr. Corrie Grant.
 Mr. Guest.
 Mr. Harcourt.
 Mr. Hayden.
 Mr. Howard.
 Mr. Leif Jones.
 Mr. Lehmann.
 Mr. Mansfield.
 Mr. Masterman.
 Mr. Napier.
 Mr. William Priestley.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Soames.
 Mr. Soares.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. George White.
 Mr. Tyson Wilson.
 Mr. Winfrey.
 Mr. Young.

Noes—*continued*.

Mr. Jesse Collings.
 Sir Frederick Dixon-Hartland.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Mr. Harrison-Broadley.
 Mr. Lane-Fox.
 Colonel Long.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

Clause 10.

An Amendment made, in page 5, line 13, after the word "let," by inserting the words "by the county council"—(*Mr. Chaplin*).

Another Amendment proposed, in page 5, line 14, to leave out Subsection (2)—(*Mr. Chaplin*).—Question proposed, "That Subsection (2) stand part of the Clause."

Amendment, by leave, *withdrawn*.

Clause, as amended, *agreed to*.

Clause 11.

Amendment proposed, in page 5, line 16, at the beginning of the Clause, to insert the words "In the case of land held by them in fee simple"—(*Mr. Courthope*).—Question, "That those words be there inserted,"—put, and *negatived*.

Motion made and Question, "That the Committee do continue to sit this day, notwithstanding the sitting of the House"—(*Mr. Harcourt*),—put, and *agreed to*.

Another Amendment proposed, in page 5, line 19, to leave out all the words after the word "holding," to the end of the Clause—(*Mr. Harcourt*).—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 5, line 19, to leave out all the words after the word "opinion," and insert the words "it is advisable that the dwelling-houses required by the occupiers of such holding and adjoining holdings should be erected in proximity to each other, or to any road, water supply, sewer, or other convenience"—(*Mr. Courthope*)—instead thereof.—Question, "That the words proposed to be left out to the word 'will,' inclusive, stand part of the Clause,"—put, and *agreed to*.

Another Amendment proposed, in page 5, line 19, to leave out all the words from the word "will," to the end of the Clause, and insert the words "be for the benefit of that or adjacent small holdings provided by the Council"—(*Mr. Harcourt*)—instead thereof.—Question, "That the words proposed to be left out stand part of the Clause,"—put, and *negatived*.

Question proposed, "That those words be there inserted."

Amendment proposed to the proposed Amendment, after the word "benefit," to insert the words "for agricultural purposes"—(*Mr. Gretton*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 14.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Cave.
Sir Francis Channing.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Courthope.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Harrison-Broadley.
Mr. Lane-Fox.
Colonel Long.
Viscount Morpeth.

Noes, 37.

Mr. Alden.
Sir John Bethell.
Mr. Bramsdon.
Mr. Cheetham.
Sir Randal Cremer.
Mr. Cullinan.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Essex.
Sir Walter Foster.
Mr. Gill.
Mr. Corrie Grant.
Mr. Guest.
Mr. Harcourt.
Mr. Hayden.
Mr. Howard.
Mr. Lehmann.
Mr. Mansfield.
Mr. Masterman.
Mr. Napier.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Soames.
Mr. Soares.
Sir Edward Strachey.
Mr. Verney.
Mr. Vivian.
Mr. Walker.
Mr. Dudley Ward.

Noes—*continued*.

Mr. Warner.
Mr. Tyson Wilson.
Mr. Winfrey.
Mr. Young.

Question, "That the words 'be for the benefit of that or adjacent small holdings provided by the Council' be there inserted,"—put, and *agreed to*.

Another Amendment proposed, after the word "Council," at the end of the last Amendment, to add the words "both during and after the determination of the tenancy"—(*Mr. Cave*).—Question proposed, "That those words be there added."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, after the word "Council," at the end of the last Amendment, to add the words :

"Provided that the number of dwelling houses erected on any group of adjoining holdings shall not exceed the number of such holdings"

—(*Mr. Courthope*).—Question, "That those words be there added,"—put, and *negatived*.

Another Amendment proposed, after the word "Council," at the end of the last Amendment, to add the words :

"Provided that no buildings shall be erected by the county council on land taken by the council on lease without the consent in writing of the owner"

—(*Mr. Hicks Beach*).—Question, "That those words be there added,"—put, and *negatived*.

Question put, "That Clause 11, as amended, stand part of the Bill."—The Committee divided :

Ayes, 37.

Mr. Alden.
Sir John Bethell.
Mr. Bramsdon.
Sir Francis Channing.
Mr. Cheetham.
Sir Randal Cremer.
Mr. Cullinan.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Essex.
Sir Walter Foster.
Mr. Gill.
Mr. Corrie Grant.
Mr. Guest.
Mr. Harcourt.
Mr. Harrison-Broadley.
Mr. Hayden.
Mr. Howard.
Mr. Lehmann.
Mr. Mansfield.
Mr. Masterman.
Mr. Napier.

Noes, 11.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Cave.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Lane-Fox.
Colonel Long.
Viscount Morpeth.

Ayes—continued.

Mr. Rogers.
 Mr. Rowlands.
 Mr. Soames.
 Mr. Soares.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Vivian.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Tyson Wilson.
 Mr. Winfrey.
 Mr. Young.

Clause 12.

An Amendment made, in page 5, lines 21 and 22, by leaving out the words "on the decease of the owner of a small holding the county council"—(*Mr. Harcourt*).

Another Amendment made, in page 5, line 22, after the word "under," by inserting the words "Subsection (2) or"—(*Mr. Harcourt*).

Another Amendment made, in page 5, line 23, after the words "1892," by inserting the words "the county council"—(*Mr. Harcourt*).

Another Amendment made, in page 5, line 23, by leaving out the words "require the," and inserting the words "cause or require a small"—(*Mr. Harcourt*).

Another Amendment made, in page 5, line 24, after the word "may," by inserting the words "in the event of their requiring such holding for the purposes of the Small Holdings Act, 1892, or this Act"—(*Mr. Beckett*).

Another Amendment made, in page 5, line 24, after the word "notice," by inserting the words "in writing"—(*Mr. Beckett*).

Another Amendment made, in page 5, by leaving out from the word "holding," in line 27, to the word "determined," in line 29, both inclusive, and inserting the words "council shall, after such date as may be specified by the notice and on production to the registrar of the Land Registry of evidence of service of the notice and of the payment of the sum so agreed or determined or of the tender of such payment, be registered as the proprietor of the land in place of the registered proprietor, and such registration shall operate as a registration on a transfer for valuable consideration under the Land Transfer Acts, 1875 and 1897"—(*Mr. Harcourt*)—instead thereof.

Another Amendment made, in page 5, line 32, after the first word "the," by inserting the words "owner or the"—(*Mr. Harcourt*).

Another Amendment made, in page 5, line 32, after the word "his," by inserting the words "registered address or at his"—(*Mr. Harcourt*).

Another Amendment proposed, in page 5, line 33, at the end of the Clause, to add the words :

"(3) Where on the decease of the owner of a small holding the county council require the holding to be sold, and do not require the holding to be sold to themselves under this section, the holding shall be offered for sale first to the person then entitled to the lands (if any) from which the holding was originally severed and then to the person or persons whose lands immediately adjoin the holding, and sections one hundred and twenty-seven to one hundred and thirty of The Lands Clauses

Consolidation Act, 1845, shall apply as if the owner of the small holding were the promoter of the undertaking and the holding were superfluous lands within the meaning of those sections”

—(*Mr. Beckett*).—Question, “That those words be there added,”—put, and *negatived*.

Question put, “That Clause 12, as amended, stand part of the Bill.”—The Committee divided :

Ayes, 28.

Sir John Bethell.
Mr. Bramsdon.
Sir Francis Channing.
Mr. Cullinan.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Essex.
Sir Walter Foster.
Mr. Corrie Grant.
Mr. Guest.
Mr. Harcourt.
Mr. Howard.
Mr. Lehmann.
Mr. Masterman.
Mr. Napier.
Mr. William Priestley.
Mr. Rogers.
Mr. Rowlands.
Mr. Soames.
Mr. Verney.
Mr. Vivian.
Mr. Dudley Ward.
Mr. Warner.
Mr. George White.
Mr. Winfrey.
Mr. Young.

Noes, 12.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Cave.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Harrison-Broadley.
Mr. Lane-Fox.
Viscount Morpeth.
Lord Willoughby de Eresby.

Clause 13.

Amendment proposed, in page 5, line 38, to leave out the word “eighty,” and insert the word “sixty”—(*Mr. Cave*)—instead thereof.—Question, “That the word ‘eighty’ stand part of the Clause,”—put, and *agreed to*.

Another Amendment proposed, in page 5, line 38, after the word “years,” to insert the words “and a like period shall be allowed to the small holder for repayment of the sum advanced to him by the county council for the purchase of his holding”—(*Mr. Jesse Collings*).—Question, “That those words be there inserted”—put, and *negatived*.

An Amendment made, in page 6, line 3, by leaving out the word “or,” and inserting the words “as amended by”—(*Mr. Harcourt*)—instead thereof.

Another Amendment made, in page 6, lines 10 and 11, by leaving out the words “where the purpose of the loan is the purchase of land”—(*Mr. Harcourt*).

Another Amendment made, in page 6, lines 14 and 15, by leaving out the words “in any case eighty years,” and inserting the words “where the purpose of the loan is the purchase of land eighty years, or in any other case fifty years”—(*Mr. Harcourt*)—instead thereof.

Clause, as amended, *agreed to*.

[Adjourned till Thursday next at half-past eleven o'clock.]

Thursday, 18th July, 1907.

MEMBERS PRESENT:

Mr. STUART-WORTLEY in the Chair.

Mr. Harmood-Banner.	Mr. Leif Jones.
Mr. Barran.	Mr. Lane-Fox.
Mr. Hicks Beach.	Mr. Lehmann.
Mr. Beckett.	Colonel Long.
Sir John Bethell.	Mr. Jeremiah MacVeagh.
Mr. Brace.	Mr. Mansfield.
Mr. Bramsdon.	Mr. Masterman.
Mr. Bridgeman.	Viscount Morpeth.
Mr. Burns.	Mr. Morrell.
Sir Francis Channing.	Mr. Napier.
Mr. Chaplin.	Mr. Pickersgill.
Mr. Jesse Collings.	Mr. William Priestley.
Sir Randal Cremer.	Mr. William Redmond.
Mr. Cullinan.	Mr. Rees.
Mr. Ellis Davies.	Mr. George Roberts.
Mr. Dickinson.	Sir George Scott Robertson.
Sir John Dickson-Poynder.	Mr. Rogers.
Major Dunne.	Mr. Rowlands.
Mr. Clement Edwards.	Mr. Silcock.
Mr. Essex.	Mr. Soames.
Mr. Denison Faber.	Mr. Soares.
Mr. Ernest Gardner.	Sir Edward Strachey.
Mr. Corrie Grant.	Mr. Verney.
Mr. Gretton.	Mr. Dudley Ward.
Mr. Guest.	Mr. Warner.
Mr. Harcourt.	Mr. Wedgwood.
Mr. Harrison-Broadley.	Mr. George White.
Mr. Hayden.	Mr. Osmond Williams.
Mr. T. M. Healy.	Mr. Tyson Wilson.
Captain Hervey.	Mr. Winfrey.
Mr. Howard.	Mr. Young.

SMALL HOLDINGS AND ALLOTMENTS BILL.

Clause 14.

Amendment proposed, in page 6, line 20, to leave out all the words from the word "may" to the word "exercise," in line 22"—(*Mr. Masterman*).—Question put, "That the words proposed to be left out stand part of the Clause."—The Committee divided:

Ayes, 52.

Mr. Harmood-Banner.
Mr. Barran.
Mr. Hicks Beach.
Mr. Beckett.
Sir John Bethell.
Mr. Brace.
Mr. Burns.
Mr. Chaplin.
Sir Randal Cremer.
Mr. Cullinan.
Mr. Ellis Davies.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Clement Edwards.
Mr. Essex.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Corrie Grant.
Mr. Gretton.
Mr. Guest.
Mr. Harcourt.
Mr. Harrison-Broadley.
Mr. Hayden.
Captain Hervey.
Mr. Howard.
Mr. Leif Jones.
Mr. Lane-Fox.
Mr. Lehmann.
Colonel Long.
Mr. Jeremiah MacVeagh.
Mr. Mansfield.
Viscount Morpeth.
Mr. Morrell.
Mr. Napier.
Mr. William Priestley.
Mr. William Redmond.
Mr. Rees.
Mr. George Roberts.
Sir George Scott Robertson.
Mr. Rogers.

Noes, 7.

Sir Francis Channing.
Mr. Jessie Collings
Mr. Dickinson.
Mr. Masterman.
Mr. Pickersgill.
Mr. Soares.
Mr. George White.

Ayes—continued.

Mr. Rowlands.
 Mr. Silcock.
 Mr. Soames.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Wedgwood.
 Mr. Osmond Williams.
 Mr. Tyson Wilson.
 Mr. Winfrey.
 Mr. Young.

Another Amendment proposed, in page 6, line 25, to leave out the words "of acquiring land compulsorily"—(*Mr. Masterman*)—Question put, "That the words proposed to be left out stand part of the Clause."—The Committee divided.

Ayes, 41.

Mr. Barran.
 Mr. Hicks Beach.
 Mr. Beckett.
 Sir John Bethell.
 Mr. Burns.
 Mr. Chaplin.
 Sir Randal Cremer.
 Mr. Cullinan.
 Mr. Ellis Davies.
 Major Dunne.
 Mr. Clement Edwards.
 Mr. Essex.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Corrie Grant.
 Mr. Gretton.
 Mr. Guest.
 Mr. Harcourt.
 Mr. Harrison-Broadley.
 Mr. Hayden.
 Captain Hervey.
 Mr. Howard.
 Mr. Lane-Fox.
 Mr. Lehmann.
 Colonel Long.
 Mr. Jeremiah MacVeagh.
 Viscount Morpeth.
 Mr. William Priestley.
 Mr. William Redmond.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Soames.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Osmond Williams.
 Mr. Winfrey.
 Mr. Young.

Noes, 16.

Mr. Brace.
 Sir Francis Channing.
 Mr. Jesse Collings.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Mr. Leif Jones.
 Mr. Mansfield.
 Mr. Masterman.
 Mr. Napier.
 Mr. Pickersgill.
 Mr. George Roberts.
 Mr. Silcock.
 Mr. Soares.
 Mr. Wedgwood.
 Mr. George White.
 Mr. Tyson Wilson.

Another Amendment proposed, in page 6, line 25, to leave out the words "and of borrowing"—(*Mr. Masterman*).—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Clause *agreed to*.

Clause 15.

Amendment proposed, in page 6, line 20, to leave out the words "may, if they think fit, and," and insert the word "shall"—(*Mr. Dickinson*)—instead thereof.—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 6, line 34, after the word "council," to insert the words "or by the Commissioners acting in default of the council"—(*Mr. Gretton*)—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 6, line 35, after the word "holdings," to insert the words "including the reasonable travelling and out-of-pocket expenses of the committees and sub-committees mentioned in section thirty-one"—(*Mr. Soares*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 12.

Mr. Jessie Collings.
Sir Randal Cremer.
Mr. Ellis Davies.
Mr. Dickinson.
Mr. Corrie Grant.
Mr. Mansfield.
Mr. Masterman.
Mr. Napier.
Mr. George Roberts.
Mr. Rowlands.
Mr. Silcock.
Mr. Soares.

Noes, 41.

Mr. Barran.
Mr. Hicks Beach.
Mr. Beckett.
Sir Francis Channing.
Mr. Chaplin.
Mr. Cullinan.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Clement Edwards.
Mr. Essex.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Guest.
Mr. Harcourt.
Mr. Harrison-Broadley.
Mr. Hayden.
Captain Hervey.
Mr. Howard.
Mr. Leif Jones.
Mr. Lane-Fox.
Mr. Lehmann.
Colonel Long.
Mr. Jeremiah MacVeagh.
Viscount Morpeth.
Mr. William Priestley.
Mr. William Redmond.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.

Noes—*continued.*

Mr. Soames.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Wedgwood.
 Mr. George White.
 Mr. Osmond Williams.
 Mr. Tyson Wilson.
 Mr. Winfrey.
 Mr. Young.

Another Amendment proposed, in page 6, line 35, after the word "holdings," to insert the words "or the adaptation thereof"—(*Mr. Chaplin*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 9.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Mr. Gretton.
 Mr. Lane-Fox.
 Viscount Morpeth.

Noes, 28.

Sir Francis Channing.
 Sir Randal Cremer.
 Mr. Cullinan.
 Major Dunne.
 Mr. Essex.
 Mr. Corrie Grant.
 Mr. Guest.
 Mr. Harcourt.
 Mr. Hayden.
 Mr. T. M. Healy.
 Mr. Leif Jones.
 Mr. Lehmann.
 Mr. Jeremiah MacVeagh.
 Mr. Mansfield.
 Mr. William Priestley.
 Mr. William Redmond.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Wedgwood.
 Mr. Osmond Williams.
 Mr. Winfrey.

Motion made, and Question, "That the Committee do continue to sit this day, notwithstanding the sitting of the House"—(*Mr. Harcourt*).—put, and *agreed to*.

Another Amendment proposed, in page 6, line 35, after the word "holdings," to insert the words "the salaries of such officers as the council, with the approval of the Board, may appoint for the purposes of carrying this Act into execution"—(*Mr. Dickinson*).—Question, "That those words be there inserted,"—put, and *negatived*.

Another Amendment proposed, in page 6, line 40, to leave out the word "compensation"—(*Mr. Gretton*).—Question, "That the word 'compensation' stand part of the Clause,"—put, and *agreed to*.

Clause *agreed to*.

Clause 16.

Amendment proposed, in page 7, line 1, to leave out the words "the Commissioners acting in default of a county council, or"—(*Mr. Jesse Collings*).—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 7, line 7, after the word "them," to insert the words "and in such appointments shall be included one or more representatives of the parish or parishes in which the small holdings are situate"—(*Mr. Rogers*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 7, line 7, to leave out all the words from the word "them" to the end of the Clause—(*Viscount Morpeth*).—Question put, "That the words proposed to be left out to the word 'appointed,' in line 10 (inclusive), stand part of the Clause"—The Committee divided :

Ayes, 23.

Mr. Bramsdon.
Sir Randal Cremer.
Mr. Cullinan.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. Hayden.
Mr. Leif Jones.
Mr. Lehmann.
Mr. Mansfield.
Mr. Masterman.
Mr. Napier.
Mr. William Redmond.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Soames.
Mr. Soares.
Sir Edward Strachey.
Mr. Verney.
Mr. Dudley Ward.
Mr. Winfrey.

Noes, 13.

Mr. Hicks Beach.
Mr. Bridgeman.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Denison Faber
Mr. Gretton.
Captain Hervey.
Mr. Howard.
Mr. Lane-Fox.
Viscount Morpeth.
Mr. Warner.
Mr. Wedgwood.
Mr. Tyson Wilson.

Another Amendment proposed, in page 7, line 11, to leave out all the words from the word "provided" to the word "accordingly," in line 16 (both inclusive).—Question put, "That the words proposed to be left out to the word 'expenses,' in line 13 (inclusive), stand part of the Clause"—The Committee divided :

Ayes, 23.

Mr. Bramsdon.
Sir Randal Cremer.
Mr. Cullinan.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. Howard.

Noes, 8.

Mr. Bridgeman.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Denison Faber.
Mr. Gretton.
Captain Hervey.
Mr. Lane-Fox.
Viscount Morpeth.

Ayes—*continued.*

Mr. Leif Jones.
 Mr. Lehmann.
 Mr. Mansfield.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soames.
 Mr. Soares.
 Mr. Verney.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Wedgwood.
 Mr. Tyson Wilson.
 Mr. Winfrey.

Another Amendment proposed, in page 7, line 13, to leave out the word "shall," and insert the word "may"—(*Sir John Dickson-Poynder*)—instead thereof.—Question proposed, "That the word 'shall' stand part of the Clause."

Amendment, by leave, *withdrawn.*

An Amendment made, in page 7, line 15, by leaving out the the words from the first word "council" to the end of the Clause—(*Mr. Chaplin*).

Clause, as amended, *agreed to.*

Clause 17, *agreed to.*

Clause 18.

Amendment proposed, in page 8, line 1, to leave out the words "shall be transferred to," and insert the words "may be exercised by"—(*Mr. Chaplin*)—instead thereof.—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn.*

Another Amendment proposed, in page 8, line 11, after the word "shall," to insert the words "in the case of parishes having parish councils"—(*Mr. Chaplin*).—Question, "That those words be there inserted,"—put, and *negatived.*

Another Amendment proposed, in page 8, line 15, after the word "necessary," to insert the words "and the clerk of the district council shall perform for the parish councils within the district the same services in relation to those Acts as he now performs for the district council"—(*Mr. Bridgeman*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn.*

Another Amendment proposed, in page 8, line 16, to leave out Subsection (3).—Question proposed, "That the words proposed to be left out to the word 'council' (inclusive), in line 17, stand part of the Clause."

Debate arising,

[Adjourned till Tuesday next, at half past eleven o'clock.]

Tuesday, 23rd July, 1907.

MEMBERS PRESENT :

Mr. STUART WORTLEY in the Chair.

Mr. Alden.	Mr. Leif Jones.
Mr. Hicks Beach.	Mr. Lane-Fox.
Mr. Beckett.	Mr. Lehmann.
Sir John Bethell.	Colonel Long.
Mr. Bramsdon.	Mr. Mansfield.
Mr. Bridgeman.	Mr. Masterman.
Mr. Burns.	Mr. Montagu.
Mr. Carlile.	Viscount Morpeth.
Mr. Cave.	Mr. Morrell.
Mr. Chaplin.	Mr. Napier.
Mr. Cheetham.	Mr. Nicholls.
Mr. Jesse Collings.	Mr. Nussey.
Mr. Courthope.	Mr. William Priestley.
Mr. Cullinan.	Mr. Rees.
Mr. Ellis Davies.	Mr. Rogers.
Mr. Dickinson.	Mr. Rowlands.
Sir John Dickson-Poynder.	Mr. Silcock.
Major Dunne.	Mr. Soames.
Mr. Essex.	Mr. Soares.
Mr. Denison Faber.	Sir Edward Strachey.
Sir Walter Foster.	Mr. Verney.
Mr. Ernest Gardner.	Mr. Walker.
Mr. Corrie Grant.	Mr. Dudley Ward.
Mr. Gretton.	Mr. Wedgwood.
Mr. Harcourt.	Mr. George White.
Mr. Hayden.	Mr. Tyson Wilson.
Mr. Hedges.	Lord Willoughby de Eresby.
Captain Hervey.	Mr. Winfrey.
Mr. Howard.	Mr. Young.

SMALL HOLDINGS AND ALLOTMENTS BILL.

Clause 18, further considered.

Amendment again proposed, in page 8, line 16, to leave out Subsection (3)—(*Mr. Hicks Beach*).—Question, “That the words proposed to be left out to the word “under,” in line 17, stand part of the Clause,”—put, and *agreed to*.

An Amendment made, in page 8, line 22, after the word “incurred,” by inserting the words :

“(4) Money borrowed by a parish council under section twelve of The Local Government Act, 1894, for the purposes of the powers and duties transferred to or conferred on the council under this Act shall not be reckoned as part of the debt of the parish for the purpose of the limitation on borrowing under the said section twelve”

—(*Mr. Harcourt*).

Another Amendment made, in page 8, line 22, after the word “twelve,” at the end of the last Amendment, by inserting the words :

“(5) Sections two hundred and forty-two and two hundred and forty-three of The Public Health Act, 1875, relating to loans by the Public Works Loan Commissioners to a local authority, shall, with the necessary adaptations, apply to a loan to a parish council under The Local Government Act, 1894, or to a county council lending money to a parish council under that Act, where the purpose for which the loan is required by the parish council is the acquisition, improvement, or adaptation of land under the Allotments Acts as amended by this Act.”

—(*Mr. Harcourt*).—Question put, “That Clause 18, as amended, stand part of the Bill.”—The Committee divided :

Ayes, 32.

Mr. Bramsdon.
Mr. Burns.
Mr. Cheetham.
Mr. Cullinan.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Essex.
Sir Walter Foster.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. Hedges.
Mr. Howard.
Mr. Leif Jones.
Mr. Lehmann.
Mr. Mansfield.
Mr. Masterman.

Noes, 15.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Mr. Cave.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Courthope.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Captain Hervey.
Mr. Lane-Fox.
Colonel Long.
Viscount Morpeth.
Lord Willoughby de Eresby.

Ayes — continued.

Mr. Morrell.
 Mr. Nicholls.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soames.
 Mr. Soares.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Dudley Ward.
 Mr. George White.
 Mr. Tyson Wilson.
 Mr. Winfrey.
 Mr. Young.

Clause 19.

Amendment proposed, in page 8, line 31, to leave out Subsection (1) and insert the following new subsection—

“(1) One person shall not hold any allotment or allotments acquired under the Allotments Acts or this Act exceeding in the whole four acres of pasture or one acre of arable and three acres of pasture, and no allotment shall be assigned or sublet without the consent of the council from whom the same is held ”

—(*Mr. Chaplin*)—instead thereof.—Question, “That the word ‘five,’ at the beginning of the subsection stand part of the Clause”—put, and *agreed to*.

Another Amendment proposed, in page 8, line 34, after the word “person,” to insert the words :

“Provided that any part of the land acquired by a council under the Allotments Acts or this Act which exceeds five acres may be adapted for letting and let as an allotment, if the county council are satisfied by the council that it is convenient and desirable that it should be so let and consent to such letting accordingly ”

—(*Mr. Harcourt*).—Question put, “That those words be there inserted”—The Committee divided :

Ayes, 39.

Sir John Bethell.
 Mr. Bramsdon.
 Mr. Burns.
 Mr. Cheetham.
 Mr. Jesse Collings.
 Mr. Cullinan.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Essex.
 Sir Walter Foster.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Mr. Hayden.
 Mr. Hedges.
 Mr. Howard.
 Mr. Leif Jones.
 Mr. Lehmann.

Noes, 15.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Carlile.
 Mr. Cave.
 Mr. Chaplin.
 Mr. Courthope.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Captain Hervey.
 Mr. Lane-Fox.
 Colonel Long.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

Ayes—continued.

Mr. Mansfield.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. Rees.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soames.
 Mr. Soares.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Wedgwood.
 Mr. George White.
 Mr. Tyson Wilson.
 Mr. Winfrey.
 Mr. Young.

Another Amendment proposed, in page 8, line 35, to leave out Subsection (2)—(*Mr. Hicks Beach*).—Question proposed, “That Subsection (2) stand part of the Clause.”

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 8, line 37, after the word “buildings,” to insert the words “other than a dwelling-house”—(*Mr. Hicks Beach*).—Question put, “That those words be there inserted.”—The Committee divided:

Ayes, 15.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Carlile.
 Mr. Cave.
 Mr. Chaplin.
 Mr. Courthope.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Captain Hervey.
 Mr. Lane-Fox.
 Colonel Long.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

Noes, 38.

Sir John Bethell.
 Mr. Bramsdon.
 Mr. Burns.
 Mr. Jesse Collings.
 Mr. Cullinan.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Essex.
 Sir Walter Foster.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Mr. Hayden.
 Mr. Hedges.
 Mr. Howard.
 Mr. Leif Jones.
 Mr. Lehmann.
 Mr. Mansfield.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Napier.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. Rees.

Noes—*continued*.

Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soames.
 Mr. Soares.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Wedgwood.
 Mr. George White.
 Mr. Tyson Wilson.
 Mr. Winfrey.
 Mr. Young.

Another Amendment made, in page 8, line 37, after the word "buildings," by inserting the words "but so that not more than one dwelling-house shall be erected for occupation with any one allotment"—(*Mr. Chaplin*).

Another Amendment proposed, in page 9, line 3, at the end of the Clause, to add the words :

"(4) It shall be the duty of a parish council, if the owner so desires, to take over and manage any existing allotments"

—(*Lord Willoughby de Eresby*).—Question, "That those words be there added,"—put, and *negatived*.

Question put, "That Clause 19, as amended, stand part of the Bill.—The Committee divided :

Ayes, 35.

Mr. Alden.
 Sir John Bethell.
 Mr. Bramsdon.
 Mr. Cheetham.
 Mr Cullinan.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Essex.
 Sir Walter Foster.
 Mr. Corrie Grant.
 Mr. Harecourt.
 Mr. Hayden.
 Mr. Hedges.
 Mr. Howard.
 Mr. Leif Jones.
 Mr. Lehmann.
 Mr. Mansfield.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Napier.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.

Noes, 12.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Cave.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Captain Hervey.
 Mr. Lane-Fox.
 Viscount Morpeth.

Ayes—continued.

Mr. Soames.
 Mr. Verney.
 Mr. Dudley Ward.
 Mr. George White.
 Mr. Tyson Wilson.
 Lord Willoughby de Eresby.
 Mr. Winfrey.
 Mr. Young.

Clause 20.

Question put, "That Clause 20 stand part of the Bill."—The Committee divided :

Ayes, 36.

Mr. Alden.
 Sir John Bethell.
 Mr. Bramsdon.
 Mr. Cheetham.
 Mr. Jesse Collings.
 Mr. Cullinan.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Essex.
 Sir Walter Foster.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Mr. Hayden.
 Mr. Hedges.
 Mr. Howard.
 Mr. Leif Jones.
 Mr. Lehmann.
 Mr. Mansfield.
 Mr. Masterman.
 Viscount Morpeth.
 Mr. Morrell.
 Mr. Napier.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soames.
 Mr. Verney.
 Mr. Dudley Ward.
 Mr. George White.
 Mr. Tyson Wilson.
 Mr. Winfrey.
 Mr. Young.

Noes, 7.

Mr. Beckett.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Captain Hervey.
 Mr. Lane-Fox.
 Lord Willoughby de Eresby.

Clause 21, *agreed to.*

Clause 22.

Amendment proposed, in page 9, line 32, to leave out Subsection (2)—(*Mr.*

Q

Chaplin).—Question put, “That the words proposed to be left out to the word ‘parish,’ in line 35, stand part of the Clause.”—The Committee divided :

Ayes, 18.

Mr. Bramsdon.
Mr. Ellis Davies.
Mr. Dickinson.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. Hayden.
Mr. Hedges.
Mr. Lehmann.
Mr. Morrell.
Mr. Nicholls.
Mr. Nussey.
Mr. Rogers.
Mr. Rowlands.
Mr. Silcock.
Mr. Verney.
Mr. Wedgwood.
Mr. Tyson Wilson.
Mr. Winfrey.

Noes, 13.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Mr. Cave.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Captain Hervey.
Mr. Lane-Fox.
Colonel Long.
Viscount Morpeth.

Another Amendment proposed, in page 9, line 35, after the word “parish,” to insert the words “and all persons interested”—(*Mr. Chaplin*).—Question put, “That those words be there inserted.”—The Committee divided :

Ayes, 13.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Mr. Cave.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Captain Hervey.
Mr. Lane-Fox.
Colonel Long.
Viscount Morpeth.

Noes, 22.

Sir John Bethell.
Mr. Bramsdon.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. Hayden.
Mr. Hedges.
Mr. Lehmann.
Mr. Morrell.
Mr. Nicholls.
Mr. Nussey.
Mr. Rogers.
Mr. Silcock.
Mr. Soares.
Mr. Verney.
Mr. Dudley Ward.
Mr. Wedgwood.
Mr. Tyson Wilson.
Mr. Winfrey.

An Amendment made, in page 9, line 35, by leaving out the words “shall be entitled,” and inserting the words “and such other persons as the person holding the inquiry may, in his discretion, think fit to allow shall be permitted”—(*Mr. Harcourt*)—instead thereof.

Clause, as amended, *agreed to*

Motion made, and Question, "That the Committee do continue to sit this day, notwithstanding the sitting of the House"—(*Mr. Harcourt*)—put, and *agreed to*.

Clause 23.

Amendment proposed, in page 10, line 16, to leave out the word "fourteen," and insert the words "twenty-one"—(*Mr. Wedgwood*)—instead thereof.—Question put, "That the word 'fourteen' stand part of the Clause."—The Committee divided :

Ayes, 39.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bramsdon.
Mr. Bridgeman.
Mr. Carlile.
Mr. Cave.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Corrie Grant.
Mr. Gretton.
Mr. Harcourt.
Mr. Hedges.
Captain Hervey.
Mr. Howard.
Mr. Lane-Fox.
Colonel Long.
Mr. Mansfield.
Mr. Montagu.
Viscount Morpeth.
Mr. Morrell.
Mr. Nicholls.
Mr. Nussey.
Mr. William Priestley.
Mr. Rogers.
Mr. Silcock.
Mr. Soames.
Mr. Soares.
Sir Edward Strachey.
Mr. Verney.
Mr. Dudley Ward.
Mr. George White.
Mr. Tyson Wilson.
Lord Willoughby de Eresby.
Mr. Winfrey.

Noes, 6.

Sir John Bethell.
Mr. Ellis Davies.
Sir Walter Foster.
Mr. Hayden.
Mr. Lehmann.
Mr. Wedgwood.

Another Amendment proposed, in page 10, line 16, to leave out the words "nor more than thirty-five,"—(*Mr. Wedgwood*)—Question put, "That the words proposed to be left out stand part of the Clause"—The Committee divided :

Ayes, 32.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.

Noes, 13.

Sir John Bethell.
Mr. Bramsdon.
Mr. Ellis Davies.

Ayes—continued.

Mr. Carlile.
 Mr. Cave.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Essex.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Captain Hervey.
 Mr. Howard.
 Mr. Lane-Fox.
 Colonel Long.
 Mr. Montagu.
 Viscount Morpeth.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. William Priestley.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Soares.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Dudley Ward.
 Mr. George White.
 Lord Willoughby de Eresby.
 Mr. Winfrey.

Noes—continued.

Mr. Dickinson.
 Sir Walter Foster.
 Mr. Lehmann.
 Mr. Mansfield.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Silcock.
 Mr. Soames.
 Mr. Wedgwood.
 Mr. Tyson Wilson.

Another Amendment proposed, in page 10, line 28, to leave out all the words from the word "with," to the word "Act," in line 29 inclusive—(*Mr. Chaplin*).—Question put, "That the words proposed to be left out stand part of the Clause."—The Committee divided :

Ayes, 26.

Sir John Bethell.
 Mr. Bramsdon.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Essex.
 Sir Walter Foster.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Mr. Howard.
 Mr. Lehmann.
 Mr. Mansfield.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. William Priestley.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.

Noes, 16.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Carlile.
 Mr. Cave.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Captain Hervey.
 Mr. Lane-Fox.
 Colonel Long.
 Viscount Morpeth.
 Mr. Soares.
 Mr. Wedgwood.
 Lord Willoughby de Eresby.

Ayes—*continued.*

Mr. Verney.
Mr. Dudley Ward.
Mr. George White.
Mr. Tyson Wilson.
Mr. Winfrey.

An Amendment made, in page 10, line 29, after the word "Act," by inserting the words :

"(4) An order under this section may provide for the continuance of any existing easement or the creation of any new easement over the land authorised to be acquired."

—(Mr. *Harcourt*).

Another Amendment proposed, in page 10, line 30, to leave out Subsection (4) —(Mr. *Denison Faber*).—Question proposed, "That Sub-section (4) stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 10, line 32, after the word "compulsory," to insert the words :

"Nor shall any additional allowance be made for severance in cases where the whole of a farm or existing tenancy is hired or purchased, notwithstanding the fact that the other farms, belonging to the same owner, lie adjacent to or surround the farm so hired or purchased."

—(Mr. *Wedgwood*).—Question, "That those words be there inserted"—put, and *negatived*.

Another Amendment proposed, in page 10, line 32, after the word "compulsory," to insert the words "nor shall the compensation exceed thirty years' purchase of the value at which the holding is assessed for purposes of rating, or if only a portion of the holding is taken, more than thirty years' purchase of the amount by which the assessment of the holding is reduced in consequence of the alienation" —(Mr. *Wedgwood*).—Question proposed, "That those words be there inserted."

Debate arising,

[Adjourned till to-morrow, at half-past eleven o'clock.]

Wednesday, 24th July, 1907.

MEMBERS PRESENT :

Mr. STUART WORTLEY in the Chair.

Mr. Harwood-Banner.
Mr. Hicks Beach.
Mr. Beckett.
Sir John Bethell.
Mr. Bridgeman.
Mr. Burns.
Mr. Chaplin.
Mr. Cheetham.
Mr. Jesse Collings.
Mr. Courthope.
Sir Randal Cremer.
Mr. Cullinan.
Mr. Ellis Davies.
Mr. Dickinson.
Major Dunne.
Mr. Essex.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Corrie Grant.
Mr. Gretton.
Mr. Harcourt.
Mr. George Hardy.
Mr. Harrison-Broadley.
Mr. Hayden.
Mr. Hedges.
Captain Hervey.
Mr. Howard.

Mr. Leif Jones.
Mr. Lane-Fox.
Mr. Lehmann.
Colonel Long.
Mr. Masterman.
Viscount Morpeth.
Mr. Morrell.
Mr. Napier.
Mr. Nussey.
Mr. Pickersgill.
Mr. William Priestley.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Silcock.
Mr. Soames.
Mr. Soares.
Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. Wedgwood.
Mr. Osmond Williams.
Mr. Tyson Wilson.
Lord Willoughby de Eresby.
Mr. Winfrey.
Mr. Young.

SMALL HOLDINGS AND ALLOTMENTS BILL.

Clause 23, further considered.

Amendment again proposed, in page 10, line 32, after the word "compulsory," to insert the words :

"nor shall the compensation exceed thirty years' purchase of the value at which the holding is assessed for purposes of rating, or, if only a portion of the holding is taken, more than thirty years' purchase of the amount by which the assessment of the holding is reduced in consequence of the alienation "

—(*Mr. Wedgwood*).—Question, "That those words be there inserted,"—put, and *negatived*.

Another Amendment proposed, in page 10, line 40, to leave out all the words from the word "instead" to the word "order," in page 11, line 1, both inclusive—(*Mr. Masterman*)—Question put, "That the words proposed to be left out stand part of the Clause"—the Committee divided :

Ayes, 36.

Mr. Hicks Beach.
Mr. Beckett.
Sir John Bethell.
Mr. Bridgeman.
Mr. Chaplin.
Mr. Cheetham.
Mr. Jesse Collings.
Mr. Courthope.
Mr. Essex.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Corrie Grant.
Mr. Gretton.
Mr. Harcourt.
Mr. George Hardy.
Mr. Harrison-Broadley.
Mr. Hedges.
Mr. Howard.
Mr. Leif Jones.
Mr. Lane-Fox.
Mr. Lehmann.
Colonel Long.
Viscount Morpeth.
Mr. Nussey.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Verney.
Mr. Walker.

Noes, 7.

Mr. Cullinan.
Mr. Dickinson.
Mr. Masterman.
Mr. Morrell.
Mr. Silcock.
Mr. Soares.
Mr. Wedgwood.

Ayes—continued.

Mr. Dudley Ward.
 Mr. Osmond Williams.
 Mr. Tyson Wilson.
 Lord Willoughby de Eresby.
 Mr. Winfrey.
 Mr. Young.

Another Amendment proposed, in page 11, line 8, to leave out all the words from the word "provided" to the word "council," in line 14, both inclusive—(*Mr. Lane-Fox*).—Question put, "That the words proposed to be left out stand part of the Clause."—The Committee divided :

Ayes, 28.

Sir John Bethell.
 Sir Randal Cremer.
 Mr. Cullinan.
 Mr. Dickinson.
 Mr. Essex.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Mr. George Hardy.
 Mr. Hedges.
 Mr. Howard.
 Mr. Leif Jones.
 Mr. Lehmann.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Nussey.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Silcock.
 Mr. Soares.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Osmond Williams.
 Mr. Tyson Wilson.
 Mr. Winfrey.
 Mr. Young.

Noes, 14.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Courthope.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Mr. Harrison-Broadley.
 Mr. Lane-Fox.
 Colonel Long.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

Another Amendment proposed, in page 11, line 15, to leave out Subsection (7)—(*Mr. Chaplin*).—Question proposed, "That Subsection (7) stand part of the Clause."

Amendment, by leave, *withdrawn*.

An Amendment made, in page 11, line 27, after the word "notice," by inserting the words "to treat or to quit, as the case may be, and of the notice"—(*Mr. Harcourt*).

Another Amendment made, in page 11, line 30, by adding at the end of the Clause the words :

"Provided that in every case in which the notice of withdrawal is given by the Commissioners acting in default of the council all compensation payable under this sub-section shall be paid out of the Small Holdings Account"

—(*Mr. Gretton*).

Clause, as amended, *agreed to*.

Clause 24.

Amendment proposed, in page 11, line 39, to leave out the words "and so from time to time"—(*Mr. Lane-Fox*)—Question put, "That the words proposed to be left out stand part of the Clause."—The Committee divided:

Ayes, 32.

Mr. Burns.
Mr. Cheetham.
Sir Randal Cremer.
Mr. Ellis Davies.
Mr. Dickinson.
Mr. Essex.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. George Hardy.
Mr. Hayden.
Mr. Hedges.
Mr. Howard.
Mr. Leif Jones.
Mr. Lehmann.
Mr. Masterman.
Mr. Morrell.
Mr. Napier.
Mr. Nussey.
Mr. William Priestley.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Silcock.
Mr. Soares.
Mr. Verney.
Mr. Dudley Ward.
Mr. Wedgwood.
Mr. Osmond Williams.
Mr. Tyson Wilson.
Mr. Winfrey.
Mr. Young.

Noes, 13.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Courthope.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Harrison-Broadley.
Captain Hervey.
Mr. Lane-Fox.
Colonel Long.
Viscount Morpeth.

An Amendment made, in page 11, line 40, after the second word "time," by inserting the words:

"Provided that if on any such notice being given the landlord shall prove to the satisfaction of the Board that any land included in the tenancy is required for the amenity or convenience of any dwelling-house, then such land shall be excluded from the renewed tenancy"

—(*Mr. Chaplin*).

Another Amendment made, in page 11, line 42, by leaving out all the words from the word "shall" to the word "any," in page 12, line 1, and inserting the words "not take into account"—(*Mr. Harcourt*)—instead thereof.

Another Amendment made, in page 12, line 4, by leaving out the word "lease," and inserting the word "tenancy"—(*Mr. Harcourt*)—instead thereof.

Another Amendment made, in page 12, line 5, by leaving out the word "lease," and inserting the word "tenancy"—(*Mr. Harcourt*)—instead thereof.

Another Amendment proposed, in page 12, line 8, at the end of the Clause to add the words "or due to the establishment by the council of other small holdings or allotments in the neighbourhood, or any depreciation in the value of the land in respect of which the landlord would have been entitled to compensation if the council had so quitted the land as aforesaid"—(*Mr. Harcourt*).—Question proposed, "That those words be there added."

Amendment proposed to the proposed Amendment, after the first word "land," to insert the words "by reason of the user of the land by the council or any person deriving title under them or"—(*Mr. Chaplin*).—Question proposed, "That those words be there inserted in the proposed Amendment."

Amendment to the Amendment, by leave, *withdrawn*.

Question, "That those words be there inserted,"—put, and *agreed to*.

Another Amendment proposed, in page 12, line 8, at the end of the Clause, to add the words :

"(3) Within six months after the receipt of the notice mentioned in subsection one of this section the landlord may, by notice in writing, require the council to purchase the land and thereupon the council shall purchase the land accordingly, and such proceeding shall be taken as if the council had obtained an order authorising them to purchase the land and had served upon the landlord a notice to treat in respect thereof"

—(*Mr. Chaplin*).—Question put, "That those words be there added."—The Committee divided :

Ayes, 12.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Chaplin.
Mr. Courthope.
Mr. Denison Faber.
Mr. Gretton.
Mr. Harrison-Broadley.
Captain Hervey.
Mr. Lane-Fox.
Colonel Long.
Viscount Morpeth.
Lord Willoughby de Eresby.

Noes. 26.

Mr. Burns.
Sir Randal Cremer.
Mr. Cullinan.
Mr. Ellis Davies.
Mr. Dickinson.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. George Hardy.
Mr. Hayden.
Mr. Hedges.
Mr. Howard.
Mr. Leif Jones.
Mr. Masterman.
Mr. Morrell.
Mr. Napier.
Mr. Nussey.
Mr. William Priestley.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rowlands.
Mr. Silcock.
Mr. Verney.
Mr. Dudley Ward.
Mr. Tyson Wilson.
Mr. Winfrey.
Mr. Young.

Clause, as amended, *agreed to*.

Motion made, and Question, "That the Committee do continue to sit this day, notwithstanding the sitting of the House"—(*Mr. Harcourt*),—put, and *agreed to*.

Clause 25.

Amendment proposed, in page 12, line 11, to leave out all the words from the word "may" to the word "lease," in line 12—(*Mr. Dickinson*).—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 12, line 12, after the word "council," to insert the words "or any person"—(*Mr. Chaplin*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 12, line 14, to leave out all the words from the word "years" to the word "purposes," in line 16, inclusive—(*Mr. Chaplin*).—Question put, "That the words proposed to be left out stand part of the Clause"—The Committee divided :

Ayes, 25.

Mr. Burns.
Mr. Cheetham.
Sir Randal Cremer.
Mr. Ellis Davies.
Mr. Dickinson.
Mr. Essex.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. Hedges.
Mr. Howard.
Mr. Lehmann.
Mr. Masterman.
Mr. Napier.
Mr. Nussey.
Mr. Pickersgill.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Silcock.
Mr. Soares.
Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. Wedgwood.
Mr. Winfrey.

Noes, 11.

Mr. Beckett.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Courthope.
Mr. Denison Faber.
Mr. Gretton.
Captain Hervey.
Mr. Lane-Fox.
Colonel Long.
Viscount Morpeth.
Lord Willoughby de Eresby.

An Amendment made, in page 12, lines 21 and 22, by leaving out the words "hand and,"—(*Mr. Harcourt*).

Another Amendment made, in page 12, line 22, by leaving out the words "Chancellor attested by the clerk to the council," and inserting the words "Duchy in the name of His Majesty, his heirs, and successors"—(*Mr. Harcourt*)—instead thereof.

Another Amendment made, in page 12, line 26, by adding at the end of the Clause the words :

"(3) The like powers of leasing may be exercised in the case of glebe land or other

land belonging to an ecclesiastical benefice by the incumbent thereof with the consent of the Ecclesiastical Commissioners alone upon such terms and conditions and in such manner as the Ecclesiastical Commissioners may approve"

—(*Mr. Denison Faber*).

Clause, as amended, *agreed to*.

Clause 26.

An Amendment made, in page 12, line 27, by leaving out the words "purchased or hired," and inserting the word "acquired"—(*Mr. Gretton*)—instead thereof.

Another Amendment proposed, in page 12, line 28, after the word "which," to insert the words "is within half a mile of the capital messuage and"—(*Mr. Wedgwood*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 12, line 29, to leave out the words "pleasure ground, or other land," and insert the words "gardens, or pleasure grounds"—(*Mr. Masterman*)—instead thereof.—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 12, line 29, after the word "ground," to insert the words "home farm"—(*Mr. Denison Faber*).—Question, "That those words be there inserted,"—put, and *negatived*.

Another Amendment proposed, in page 12, line 30, after the word "dwelling-house," to insert the words "or which is farmed or occupied by the owner"—(*Lord Willoughby de Eresby*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment made, in page 12, line 31, by leaving out all the words from the word "of" to the word "undertaking," in line 32, and inserting the words "any local authority or has been acquired by any corporation or company for the purpose of a railway, dock, canal, water, or other public"—(*Mr. Harcourt*)—instead thereof.

Another Amendment proposed, in page 12, line 32, at the end of the Clause, to add the words:

"(2) The council in making, and the Board in confirming, an order for the compulsory acquisition of land shall have regard to the extent of land held or occupied in the locality by any owner or tenant and to the convenience of other property belonging to or occupied by the same owner or tenant, and shall, so far as practicable, avoid taking an undue or inconvenient quantity of land from any one owner or tenant, and in particular shall avoid taking a part of a holding so that sufficient land would not be left for the economic and profitable use of the existing agricultural building and equipment of the holding."

—(*Mr. Harcourt*).—Question proposed, "That those words be there added."

Amendment proposed to the proposed Amendment, in line 6, after the word "tenant," to insert the words "or any land which is farmed or occupied by the owner thereof"—(*Mr. Jesse Collings*).—Question put, "That those words be there inserted in the proposed Amendment."—The Committee divided:

Ayes, 8.

Mr. Beckett.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Denison Faber.
 Captain Hervey.
 Mr. Lane-Fox.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

Noes, 25.

Sir John Bethell.
 Mr. Burns.
 Sir Randal Cremer.
 Mr. Cullinan.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Mr. Essex.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Mr. George Hardy.
 Mr. Hedges.
 Mr. Howard.
 Colonel Long.
 Mr. Masterman.
 Mr. Nussey.
 Mr. Pickersgill.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Soames.
 Mr. Soares.
 Mr. Verney.
 Mr. Dudley Ward.
 Mr. Wedgwood.
 Mr. Tyson Wilson.
 Mr. Winfrey.

Another Amendment proposed to the proposed Amendment, in line 6, to leave out all the words from the word "tenant" to the end of the proposed Amendment—(*Mr. Masterman*).—Question proposed, "That the words proposed to be left out stand part of the proposed Amendment."

Amendment to the Amendment, by leave, *withdrawn*.

Question, "That those words be there added,"—put, and *agreed to*.

[Adjourned till to-morrow, at half-past eleven o'clock.]

Thursday, 25th July, 1907.

MEMBERS PRESENT :

Mr. STUART WORTLEY in the Chair.

Mr. Barran.
Mr. Hicks Beach.
Mr. Beck.
Mr. Beckett.
Sir John Bethell.
Mr. Bridgeman.
Mr. Burns.
Mr. Cave.
Sir Francis Channing.
Mr. Chaplin.
Mr. Cheetham.
Mr. Jesse Collings.
Sir Randal Cremer.
Mr. Cullinan.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Denison Faber.
Sir Walter Foster.
Mr. Ernest Gardner.
Mr. Corrie Grant.
Mr. Gretton.
Mr. Harcourt.
Mr. George Hardy.
Mr. Harrison-Broadley.
Mr. T. M. Healy.

Mr. Hedges.
Captain Hervey.
Mr. Howard.
Mr. Leif Jones.
Mr. Lane-Fox.
Mr. Masterman.
Viscount Morpeth.
Mr. Morrell.
Mr. Napier.
Mr. Nussey.
Mr. Pickersgill.
Mr. William Priestley.
Mr. George Roberts.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Soames.
Mr. Soares.
Mr. Solicitor-General.
Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. Wedgwood.
Mr. Osmond Williams.
Mr. Tyson Wilson.
Lord Willoughby de Eresby.
Mr. Winfrey.

SMALL HOLDINGS AND ALLOTMENTS BILL.

Clause 26, further considered.

Another Amendment proposed, in page 12, line 32, at the end of the Clause, to add the words :

“(c) Any land belonging to the Crown, hospitals, charities, colleges, and other such institutions shall be taken in preference to other lands in the same locality provided they are equally suitable for the purposes of this Act ”

—(*Mr. Nussey*).—Question proposed, “That those words be there added.”

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 12, line 32, at the end of the Clause, to add the words “and no person shall at any time be required to sell or demise to a council a part only of any farm or holding if such person be able and willing to sell or demise the whole thereof”—(*Mr. Chaplin*).—Question put, “That those words be there added.”—The Committee divided :

Ayes, 12.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Harrison-Broadley.
Captain Hervey.
Mr. Lane-Fox.
Viscount Morpeth.
Lord Willoughby de Eresby.

Noes, 32.

Mr. Beck.
Sir John Bethell.
Sir Francis Channing.
Mr. Cheetham.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Sir Walter Foster.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. T. M. Healy.
Mr. Hedges.
Mr. Leif Jones.
Mr. Masterman.
Mr. Nussey.
Mr. Pickersgill.
Mr. William Priestley.
Mr. George Roberts.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Soames.
Mr. Soares.
Mr. Solicitor-General.
Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. Wedgwood.

Noes—*continued*.

Mr. Osmond Williams.
Mr. Tyson Wilson.
Mr. Winfrey.

Another Amendment proposed, in page 12, line 32, at the end of the Clause, to add the words "No permanent pasture hired compulsorily by a council shall be broken up without the consent in writing of the landlord"—(*Lord Willoughby de Eresby*).—Question proposed, "That those words be there added."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 12, line 32, at the end of the Clause to add the words "no land shall be hired compulsorily which is permanent pasture except upon the terms that before permitting the permanent pasture to be broken up the council shall either obtain the consent of the landlord or offer to purchase the land under the provisions of this Act"—(*Mr. Chaplin*).—Question proposed, "That those words be there added."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 12, line 32, at the end of the Clause to add the words :

"No land shall be purchased or hired compulsorily for the purpose of allotments or small holdings which is at the time of hiring occupied as an allotment or small holding as defined by this Act or which forms part of a farm occupied for the purposes of husbandry of not more than two hundred and fifty acres.

No compulsory hiring shall include the right to gravel, sand, clay, or minerals, or shall interfere with the free access of the owner to the land for the purpose of exercising such right "

—(*Mr. Hicks Beach*).—Question proposed, "That those words be there added."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 12, line 32, at the end of the Clause, to add the words :

"(3) No holding of fifty acres or less in extent shall be acquired compulsorily for the purposes of small holdings or allotments "

—(*Mr. Harcourt*).—Question proposed, "That those words be there added."

Amendment proposed to the proposed Amendment, to leave out the word "fifty," and insert the words "one hundred"—(*Mr. Hicks Beach*)—instead thereof.—Question put, "That the word 'fifty' stand part of the proposed Amendment."—The Committee divided :

Ayes, 35.

Mr. Beck.
Sir Francis Channing.
Mr. Cheetham.
Sir Randal Cremer.
Mr. Cullinan.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Sir Walter Foster.

Noes, 14.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Mr. Cave.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Harrison-Broadley.

Ayes—*continued*.

Mr. Corrie Grant.
 Mr. Harcourt.
 Mr. T. M. Healy.
 Mr. Hedges.
 Mr. Howard.
 Mr. Leif Jones.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Napier.
 Mr. Nussey.
 Mr. Pickersgill.
 Mr. William Priestley.
 Mr. George Roberts.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Soames.
 Mr. Solicitor-General.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Wedgwood.
 Mr. Osmond Williams.
 Mr. Tyson Wilson.
 Mr. Winfrey.

Noes—*continued*.

Captain Hervey.
 Mr. Lane-Fox.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

Another Amendment proposed to the proposed Amendment, to leave out the words "or allotments"—(*Mr. Masterman*).—Question put, "That the words 'or allotments' stand part of the proposed Amendment."—The Committee divided :

Ayes, 37.

Mr. Hicks Beach.
 Mr. Beck.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Cave.
 Sir Francis Channing.
 Mr. Chaplin.
 Mr. Cheetham.
 Mr. Jesse Collings.
 Sir Randal Cremer.
 Mr. Cullinan.
 Mr. Ellis Davies.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Denison Faber.
 Sir Walter Foster.
 Mr. Ernest Gardner.
 Mr. Corrie Grant.
 Mr. Gretton.
 Mr. Harcourt.
 Mr. Harrison-Broadley.
 Mr. T. M. Healy.
 Mr. Hedges.
 Captain Hervey.
 Mr. Howard.
 Mr. Lane-Fox.

Noes, 11.

Mr. Dickinson.
 Mr. George Hardy.
 Mr. Leif Jones.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Napier.
 Mr. Pickersgill.
 Mr. George Roberts.
 Mr. Soares.
 Mr. Wedgwood.
 Lord Willoughby de Eresby.

Ayes—*continued*.

Mr. Nussey.
 Mr. William Priestley.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Soames.
 Mr. Solicitor-General.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Tyson Wilson.
 Mr. Winfrey.

Question, "That the words :

'(3) No holding of fifty acres or less in extent shall be acquired compulsorily for the purposes of small holdings or allotments'

be there added,"—put, and *agreed to*.

Another Amendment proposed, after the word "allotments," at the end of the last Amendment, to add the words :

"No compulsory hiring shall include the right to gravel, sand, clay, or minerals, or shall interfere with the free access of the owner to the land for the purpose of exercising such right"

—(*Mr. Hicks Beach*).—Question proposed, "That those words be there added."

Amendment, by leave, *withdrawn*.

Clause, as amended, *agreed to*.

Clause 27.

Amendment proposed, in page 12, line 34, after the word "acquire," to insert the words "grazing rights or"—(*Mr. Walker*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 12, line 35, after the word "to," to insert the word "any"—(*Mr. Chaplin*).—Question proposed, that the word "any" be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 12, line 37, after the word "acquired," to insert the words "provided that the acquisition of such grazing rights does not interfere with any rights enjoyed by existing occupants of small holdings"

—(*Mr. Bridgeman*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 11.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Cave.
 Mr. Chaplin.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Captain Hervey.
 Mr. Lane-Fox.
 Lord Willoughby de Eresby.

Noes, 23.

Mr. Barran.
 Mr. Beck.
 Sir Randal Cremer.
 Mr. Dickinson.
 Major Dunne.
 Sir Walter Foster.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Mr. George Hardy.
 Mr. Hedges.
 Mr. Howard.

Noes—*continued.*

Mr. Leif Jones.
 Mr. Napier.
 Mr. Pickersgill.
 Mr. George Roberts.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Solicitor-General.
 Mr. Verney.
 Mr. Dudley Ward.
 Mr. Wedgwood.
 Mr. Tyson Wilson.
 Mr. Winfrey.

Motion made and Question, "That the Committee do continue to sit this day, notwithstanding the sitting of the House."—(*Mr. Harcourt*)—put, and *agreed to*.

Another Amendment proposed, in page 12, line 37, after the word "acquired," to insert the words "but so that no pasture shall be taken from any farm or holding in such quantity as to leave an insufficient amount of pasture for the purposes of such farm or holding"—(*Mr. Chaplin*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Clause, *agreed to*.

Clause 28, *agreed to*.

Clause 29.

Amendment proposed, in page 13, line 21, after the word "used," to insert the words "let or sold"—(*Mr. Cave*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 13, line 22, after the word "purposes," to insert the words "or for any of the purposes mentioned in section forty-one of The Agricultural Holdings (England) Act, 1883, other than the planting of trees"—(*Mr. Cave*).—Question put, "That those words be there inserted."—The Committee divided:

Ayes, 10.

Mr. Hicks Beach.
 Mr. Cave.
 Mr. Chaplin.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Captain Hervey.
 Mr. Lane-Fox.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

Noes, 27.

Mr. Barran.
 Mr. Beck.
 Mr. Bridgeman.
 Mr. Jesse Collings.
 Sir Randal Cremer.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Major Dunne.
 Sir Walter Foster.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Mr. George Hardy.
 Mr. Hedges.
 Mr. Howard.
 Mr. Leif Jones.
 Mr. Nussey.

Noes—*continued.*

Mr. Pickersgill.
 Mr. George Roberts.
 Mr. Rogers.
 Mr. Soames.
 Mr. Soares.
 Mr. Solicitor-General.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Tyson Wilson.
 Mr. Winfrey.

An Amendment made in page 13, line 24, by adding at the end of the Clause the words :

“And if a part only of the land is resumed the rent payable by the Council shall as from the date of resumption be reduced by such sum as in default of agreement may be determined by valuation by a valuer appointed by the Board”

—(*Mr. Cave*).

Clause, as amended, *agreed to.*

Clause 30.

Amendment proposed, in page 13, line 25, to leave out Subsection (1)—(*Mr. Chaplin*).—Question put, “That the words proposed to be left out to the word ‘garden,’ in line 31, inclusive, stand part of the Clause.”—The Committee divided :

Ayes, 30.

Mr. Barran.
 Mr. Beck.
 Sir Francis Channing.
 Mr. Cheetham.
 Mr. Jesse Collings.
 Sir Randal Cremer.
 Mr. Cullinan.
 Mr. Dickinson.
 Major Dunne.
 Sir Walter Foster.
 Mr. Corrie Grant.
 Mr. Gretton.
 Mr. Harcourt.
 Mr. George Hardy.
 Mr. Hedges.
 Captain Hervey.
 Mr. Howard.
 Mr. Leif Jones.
 Mr. Nussey.
 Mr. George Roberts.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Soames.
 Mr. Soares.
 Mr. Solicitor-General.
 Mr. Verney.
 Mr. Walker.

Noes, 7.

Mr. Hicks Beach.
 Mr. Bridgeman.
 Mr. Cave.
 Mr. Chaplin.
 Mr. Denison Faber.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

Ayes—continued.

Mr. Dudley Ward.
Mr. Tyson Wilson.
Mr. Winfrey.

Another Amendment proposed, in page 13, line 32, to leave out all the words from the word "Provided" to the word "final," in line 38, both inclusive—(*Mr. Jesse Collings*).—Question put, "That the words proposed to be left out stand part of the Clause."—The Committee divided :

Ayes, 24.

Mr. Barran.
Mr. Hicks Beach.
Mr. Beck.
Mr. Cave.
Mr. Chaplin.
Mr. Cheetham.
Sir Randal Cremer.
Mr. Cullinan.
Major Dunne.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. Howard.
Mr. Leif Jones.
Viscount Morpeth.
Mr. George Roberts.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Soames.
Mr. Solicitor-General.
Mr. Walker.
Mr. Dudley Ward.
Mr. Tyson Wilson.
Lord Willoughby de Eresby.
Mr. Winfrey.

Noes, 12.

Mr. Bridgeman.
Sir Francis Channing.
Mr. Jesse Collings.
Mr. Dickinson.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. George Hardy.
Mr. Hedges.
Captain Hervey.
Mr. Soares.
Mr. Verney.

Another Amendment proposed, in page 14, line 2, to leave out all the words from the words "1906" to the word "schedule," in line 8, inclusive—(*Mr. Chaplin*).—Question put, "That the words proposed to be left out stand part of the Clause."—The Committee divided :

Ayes, 24.

Mr. Barran.
Mr. Beck.
Sir Francis Channing.
Mr. Cheetham.
Sir Randal Cremer.
Mr. Dickinson.
Major Dunne.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. George Hardy.
Mr. Hedges.
Mr. Howard.
Mr. Leif Jones.
Mr. Nussey.
Mr. George Roberts.

Noes, 11.

Mr. Hicks Beach.
Mr. Bridgeman.
Mr. Cave.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Captain Hervey.
Viscount Morpeth.
Lord Willoughby de Eresby.

Ayes—continued.

Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Soames.
 Mr. Soares.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Tyson Wilson.
 Mr. Winfrey.

An Amendment made, in page 14, line 12, after the word "value," by inserting the words "to the landlord"—(*Viscount Morpeth*).

Another Amendment proposed, in page 14, line 13, to leave out Subsection (3)—(*Lord Willoughby de Eresby*).—Question, "That Subsection (3) stand part of the Clause,"—put, and *agreed to*.

Question put, "That Clause 30, as amended, stand part of the Bill."—The Committee divided :

Ayes, 26.

Mr. Barran.
 Mr. Beck.
 Sir Francis Channing.
 Mr. Cheetham.
 Sir Randal Cremer.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Mr. Hedges.
 Mr. Howard.
 Mr. Leif Jones.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Nussey.
 Mr. George Roberts.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Soames.
 Mr. Soares.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Tyson Wilson.
 Mr. Winfrey.

Noes, 8.

Mr. Hicks Beach.
 Mr. Bridgeman.
 Mr. Chaplin.
 Mr. Denison Faber.
 Mr. Gretton.
 Captain Hervey.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

Clause 31.

Amendment proposed, in page 14, line 25, after the word "council," to insert the words "but the members of the council shall be a majority"—(*Viscount Morpeth*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 18.

Mr. Hicks Beach.
 Mr. Bridgeman.

Noes, 16.

Mr. Barran.
 Mr. Beck.

Ayes—*continued*.

Mr. Chaplin.
Mr. Cheetham.
Mr. Jesse Collings.
Mr. Dickinson.
Major Dunne.
Mr. Denison Faber.
Mr. Gretton.
Mr. Hedges.
Captain Hervey.
Viscount Morpeth.
Mr. Rogers.
Mr. Soames.
Mr. Soares.
Mr. Verney.
Mr. Walker.
Lord Willoughby de Eresby.

Noes—*continued*.

Sir Francis Channing.
Sir Randal Cremer.
Sir John Dickson-Poynder.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. Howard.
Mr. Leif Jones.
Mr. Morrell.
Mr. Nussey.
Mr. George Roberts.
Sir George Scott Robertson.
Mr. Dudley Ward.
Mr. Tyson Wilson.
Mr. Winfrey.

[Adjourned till Tuesday, next, at half-past 11 o'clock.]

Tuesday, 30th July, 1907.

MEMBERS PRESENT :

Mr. STUART WORTLEY in the Chair.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bennett.
Sir John Bethell.
Mr. Bowles.
Mr. Bramsdon.
Mr. Bridgeman.
Mr. Carlile.
Mr. Cave.
Sir Francis Channing.
Mr. Chaplin.
Mr. Cheetham.
Mr. Jesse Collings.
Mr. Courthope.
Sir Randal Cremer.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Essex.
Mr. Denison Faber.
Sir Walter Foster.
Mr. Ernest Gardner.
Mr. Corrie Grant.
Mr. Gretton.
Mr. Guest.
Mr. Harcourt.
Mr. Hayden.

Mr. Howard.
Mr. Leif Jones.
Mr. Lane-Fox.
Mr. Masterman.
Viscount Morpeth.
Mr. Morrell.
Mr. Napier.
Mr. Nicholls.
Mr. Nussey.
Mr. Parker.
Mr. Pickersgill.
Mr. William Redmond.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Silcock.
Mr. Soames.
Mr. Soares.
Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. Warner.
Mr. Wedgwood.
Mr. George White.
Mr. Osmond Williams.
Mr. Tyson Wilson.
Lord Willoughby de Eresby.
Mr. Winfrey.

SMALL HOLDINGS AND ALLOTMENTS BILL.

Clause 31, further considered.

An Amendment made, in page 15, line 4, after the second word "the," by inserting the words "boroughs, urban districts, or"—(*Mr. Harcourt*).

Another Amendment proposed, in page 15, line 4, after the word "situate," to insert the words "or for which they are provided"—(*Mr. Harcourt*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 19.

Sir Francis Channing.
Mr. Cheetham.
Mr. Ellis Davies.
Mr. Dickinson.
Sir Walter Foster.
Mr. Corrie Grant.
Mr. Guest.
Mr. Harcourt.
Mr. Leif Jones.
Mr. Masterman.
Mr. Nicholls.
Mr. Parker.
Sir George Scott Robertson.
Mr. Soares.
Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. George White.
Mr. Winfrey.

Noes, 12.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bowles.
Mr. Bridgeman.
Mr. Carlile.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Viscount Morpeth.
Lord Willoughby de Eresby.

Clause, as amended, *agreed to*.

Clause 32, *agreed to*.

Clause 33.

Amendment proposed, in page 15, line 12, at the beginning of the Clause to insert the words "It shall be the duty of"—(*Sir Francis Channing*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 15, line 12, to leave out the words "A County Council," and insert the words "The Board or County Councils"—(*Mr. Hicks Beach*)—instead thereof.—Question put, "That the words 'A County Council' stand part of the Clause."—The Committee divided :

Y

Ayes, 26.

Mr. Bennett.
 Sir Randal Cremer.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Sir Walter Foster.
 Mr. Corrie Grant.
 Mr. Guest.
 Mr. Harcourt.
 Mr. Howard.
 Mr. Leif Jones.
 Viscount Morpeth.
 Mr. Morrell.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. Parker.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Silcock.
 Mr. Soares.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. George White.
 Mr. Winfrey.

Noes, 17.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bowles.
 Mr. Bridgeman.
 Mr. Carlile.
 Sir Francis Channing.
 Mr. Chaplin.
 Mr. Cheetham.
 Mr. Jesse Collings.
 Mr. Courthope.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Mr. Lane-Fox.
 Mr. Masterman.
 Mr. Wedgwood.
 Lord Willoughby de Eresby.

Another Amendment proposed, in page 15, line 12, to leave out the words "promote the formation of and"—(*Mr. Bridgeman*).—Question put, "That the words proposed to be left out stand part of the Clause."—The Committee divided :

Ayes, 31.

Mr. Bennett.
 Sir Francis Channing.
 Mr. Cheetham.
 Mr. Courthope.
 Sir Randal Cremer.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Sir Walter Foster.
 Mr. Corrie Grant.
 Mr. Guest.
 Mr. Harcourt.
 Mr. Howard.
 Mr. Leif Jones.
 Mr. Masterman.
 Viscount Morpeth.
 Mr. Morrell.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. Parker.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Silcock.
 Mr. Soares.

Noes, 11.

Mr. Beckett.
 Mr. Bowles.
 Mr. Bridgeman.
 Mr. Carlile.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Mr. Lane-Fox.
 Lord Willoughby de Eresby.

Ayes—continued.

Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. Wedgwood.
Mr. George White.
Mr. Winfrey.

Another Amendment proposed, in page 15, line 13, after the word “societies,” to insert the words “so constituted that the division of profits amongst the members thereof is prohibited or restricted and”—(*Mr. Gretton*).—Question put, “That those words be there inserted”—The Committee divided :

Ayes, 15.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bowles.
Mr. Bridgeman.
Mr. Cave.
Mr. Chaplin.
Mr. Cheetham.
Mr. Jesse Collings.
Mr. Courthope.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Lane-Fox.
Viscount Morpeth.
Lord Willoughby de Eresby.

Noes, 29.

Mr. Bennett.
Sir Francis Channing.
Sir Randal Cremer.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Mr. Corrie Grant.
Mr. Guest.
Mr. Harcourt.
Mr. Hayden.
Mr. Howard.
Mr. Leif Jones.
Mr. Masterman.
Mr. Morrell.
Mr. Napier.
Mr. Nicholls.
Mr. Nussey.
Mr. Parker.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Silcock.
Mr. Soares.
Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. Wedgwood.
Mr. George White.
Mr. Winfrey.

Another Amendment proposed, in page 15, line 14, to leave out the words “or one of their objects”—(*Mr. Gretton*).—Question, “That the words proposed to be left out stand part of the Clause”—put, and *agreed to*.

Another Amendment proposed, in page 15, line 16, after the word “allotments,” to insert the words “where such societies or banks are registered under the Industrial and Provident Societies Acts, or under the Friendly Societies Acts”—(*Sir Francis Channing*).—Question, “That those words be there inserted”—put, and *negatived*.

Another Amendment proposed, in page 15, line 17, to leave out Subsection (2)—(*Mr. Hicks Beach*).—Question, “That the word ‘The’ at the beginning of the subsection stand part of the Clause,”—put, and *agreed to*.

Another Amendment proposed, in page 15, line 24, to leave out Subsection (3)—(*Mr. Hicks Beach*).—Question, “That the words proposed to be left out to the word “society,” in line 26, stand part of the Clause,”—put, and *agreed to*.

Another Amendment proposed, in page 15, line 27, to leave out the words “or intending to carry on business”—(*Mr. Gretton*).—Question proposed, “That the words proposed to be left out stand part of the Clause.”

Amendment, by leave, *withdrawn*.

An Amendment made, in page 15, line 33, at the end of the Clause, by adding the words :

“(4) The Board, with the consent of the Treasury, may out of the Small Holdings Account, make grants upon such terms as the Board may determine, to any society having as its objects, or one of its objects, the promotion of co-operation in connection with the cultivation of small holdings or allotments ”

—(*Mr. Harcourt*).

Clause, as amended, *agreed to*.

Clause 34.

Amendment proposed, in page 15, line 35, to leave out the words “may at any time,” and insert the word “shall ”—(*Viscount Morpeth*)—instead thereof.—Question proposed, “That the words proposed to be left out stand part of the Clause.”

Amendment, by leave, *withdrawn*.

Clause *agreed to*.

Motion made and Question, “That the Committee do continue to sit this day, notwithstanding the sitting of the House ”—(*Mr. Harcourt*),—put, and *agreed to*.

Clause 35.

Amendment proposed, in page 15, line 39, to leave out the words “one such Commissioner,” and insert the words “two of the Commissioners”—(*Mr. Chaplin*)—instead thereof.—Question put, “That the words proposed to be left out stand part of the Clause.”—The Committee divided :

Ayes, 35.

Mr. Bennett.
Sir John Bethell.
Mr. Bramsdon.
Sir Francis Channing.
Mr. Cheetham.
Sir Randal Cremer.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Sir Walter Foster.
Mr. Corrie Grant.
Mr. Guest.
Mr. Harcourt.
Mr. Hayden.
Mr. Howard.
Mr. Leif Jones.
Mr. Masterman.
Mr. Morrell.

Noes, 12.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Mr. Carlile.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Courthope.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Lane-Fox.
Viscount Morpeth.

Ayes—continued.

Mr. Nicholls.
 Mr. Nussey.
 Mr. Parker.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Silcock.
 Mr. Soames.
 Mr. Soares.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Tyson Wilson.
 Lord Willoughby de Eresby.
 Mr. Winfrey.

Clause *agreed to.*

Clause 36, *agreed to.*

Clause 37.

Amendment proposed, in page 16, line 14, after the words "1906," to insert the words :

"(2) Where an order has been made and confirmed authorising the compulsory acquisition of land by the Commissioners acting in default of a county council the arbitrator or valuer, as the case may be, shall be appointed by the Lord Chief Justice of England instead of by the Board"

—(*Mr. Harcourt*).—Question proposed, "That those words be there inserted."

Amendment proposed to the proposed Amendment, to leave out the words "Lord Chief Justice of England," and insert the words "President for the time being of the Surveyors' Institution"—(*Mr. Chaplin*)—instead thereof.—Question, "That the words proposed to be left out stand part of the proposed Amendment,"—put, and *agreed to.*

Question, "That those words be there inserted,"—put, and *agreed to.*

Another Amendment made, in page 16, line 16, by leaving out the first words "by the Board"—(*Mr. Harcourt*).

Clause, as amended, *agreed to.*

Clauses 38 and 39, *agreed to.*

Clause 40.

Amendment proposed, in page 16, line 31, to leave out the words "exceeds five acres and"—(*Mr. Masterman*).—Question put, "That the word 'exceeds' stand part of the Clause."—The Committee divided :

Z

Ayes, 24.

Mr. Bennett.
 Sir John Bethell.
 Mr. Bramsdon.
 Sir Randal Cremer.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Essex.
 Sir Walter Foster.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Mr. Hayden.
 Mr. Howard.
 Mr. Leif Jones.
 Mr. Nicholls.
 Mr. William Redmond.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr Soames.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Osmond Williams.
 Mr. Winfrey.

Noes, 25.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Carlile.
 Mr. Cave.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Mr. Guest.
 Mr. Lane-Fox.
 Mr. Masterman.
 Viscount Morpeth.
 Mr. Morrell.
 Mr. Nussey.
 Mr. Parker.
 Mr. Silcock.
 Mr. Soares.
 Mr. Warner.
 Mr. George White.
 Mr. Tyson Wilson.
 Lord Willoughby de Eresby.

Remaining words omitted.

Clause, as amended, *agreed to*.

Clause 41.

Amendment proposed, in page 17, line 22, to leave out the word "eight," and insert the word "nine"—(*Mr. Gretton*)—instead thereof.—Question, "That the word 'eight' stand part of the Clause,"—put, and *agreed to*.

Another Amendment proposed, in page 17, line 23, to leave out the words "Scotland or"—(*Mr. Hicks Beach*).—Question put, "That the words 'Scotiand or' stand part of the Clause."—The Committee divided:

Ayes, 33.

Mr. Bennett.
 Sir John Bethell.
 Mr. Bramsdon.
 Sir Francis Channing.
 Mr. Cheetham.
 Mr. Jesse Collings.
 Sir Randal Cremer.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Essex.
 Sir Walter Foster.
 Mr. Corrie Grant.
 Mr. Guest.
 Mr. Harcourt.

Noes, 11.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Carlile.
 Mr. Cave.
 Mr. Chaplin.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Mr. Lane-Fox.
 Viscount Morpeth.
 Lord Willoughby de Eresby.

Ayes—continued.

Mr. Howard.
 Mr. Leif Jones.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. Parker.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Soames.
 Mr. Soares.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Warner.
 Mr. Tyson Wilson.
 Mr. Winfrey.

Clause *agreed to*.

New Clause ("Accounts of receipts and expenditure under the Small Holdings and Allotments Acts") brought up and read the first time as follows :

"Separate accounts shall be kept of the receipts and expenditure of a council under The Small Holdings Act, 1892, as amended by this Act, and under the Allotments Acts as amended by this Act, and any such receipts shall, subject to the provisions of those Acts, be applicable to the purposes of those Acts, respectively, but not for any other purpose except with the consent of the Local Government Board, and for the purpose of the provisions relating to the audit of accounts, any persons appointed by an urban sanitary authority under the Allotments Acts, or by a parish meeting under this Act, to exercise and perform powers and duties as to the management of allotments, shall be deemed to be officers of the sanitary authority or parish meeting, as the case may be"

—(*Mr. Harcourt*).

Clause read a second time and added to the Bill.

Another New Clause ("Application of Allotments Acts to London") brought up and read the first time as follows :

"The powers conferred on sanitary authorities by the Allotments Acts, as amended by this Act, may in London be exercised by the London County Council, and those Acts, as so amended, shall apply accordingly, except that, subject to the provisions of this Act, the expenses shall be defrayed and money borrowed under and in accordance with the provisions of The Local Government Act, 1888"

—(*Mr. Harcourt*).—Question proposed, "That the Clause be read a second time."

Debate arising.

[Adjourned till to-morrow at eleven o'clock.]

Wednesday, 31st July, 1907.

MEMBERS PRESENT:

Mr. STUART WORTLEY in the Chair.

Mr. Alden.
Mr. Harmood-Banner.
Mr. Barran.
Mr. Hicks Beach.
Mr. Beckett.
Mr. Bennett.
Sir John Bethell.
Mr. Bowles.
Mr. Bramsdon.
Mr. Bridgeman.
Mr. Burns.
Mr. Carlile.
Sir Francis Channing.
Mr. Chaplin.
Mr. Cheetham.
Mr. Jesse Collings.
Mr. Courthope.
Sir Randal Cremer.
Mr. Cullinan.
Mr. Ellis Davies.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Clement Edwards.
Mr. Essex.
Mr. Denison Faber.
Mr. Ernest Garduer.
Mr. Corrie Grant.
Mr. Gretton.
Mr. Guest.
Mr. Harcourt.

Mr. Hayden.
Mr. T. M. Healy.
Captain Hervey.
Mr. Howard.
Mr. Leif Jones.
Mr. Lehmann.
Mr. Masterman.
Viscount Morpeth.
Mr. Morrell.
Mr. Napier.
Mr. Nussey.
Mr. Parker.
Mr. Pickersgill.
Mr. William Priestley.
Mr. William Redmond.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Silcock.
Mr. Soames.
Mr. Soares.
Mr. Solicitor-General.
Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. Wedgwood.
Mr. George White.
Mr. Tyson Wilson.
Lord Willoughby de Eresby.
Mr. Winfrey.

SMALL HOLDINGS AND ALLOTMENTS BILL.

Proposed New Clause ("Application of Allotments Acts to London") further considered.

Question, "That the Clause be read a second time,"—put, and *agreed to*.

Amendment proposed, in line 2, to leave out the words "in London"—(*Mr. Chaplin*).
Question put, "That the words 'in London' stand part of the Clause."—The Committee divided:

Ayes, 27.

Mr. Barran.
Mr. Bramsdon.
Mr. Burns.
Mr. Cheetham.
Mr. Jesse Collings.
Mr. Dickinson.
Major Dunne.
Mr. Essex.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. Howard.
Mr. Leif Jones.
Mr. Lehmann.
Mr. Nussey.
Mr. Parker.
Mr. Pickersgill.
Mr. William Priestley.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Soares.
Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. Wedgwood.
Mr. George White.
Mr. Winfrey.

Noes, 5.

Mr. Hicks Beach.
Mr. Bridgeman.
Mr. Chaplin.
Mr. Denison Faber.
Mr. Gretton.

Another Amendment proposed, in line 2, after the word "exercised," to insert the words "in respect of any metropolitan borough on the application of the council of that borough"—(*Mr. Chaplin*).—Question put, "That those words be there inserted."—The Committee divided:

Ayes, 8.

Mr. Hicks Beach.
Mr. Beckett.

Noes, 35.

Mr. Barran.
Mr. Bennett.

Ayes—*continued*.

Mr. Bridgeman.
 Mr. Carlile.
 Mr. Chaplin.
 Mr. Denison Faber.
 Mr. Ernest Gardner.
 Mr. Gretton.

Noes—*continued*.

Sir John Bethell.
 Mr. Bramsdon.
 Mr. Burns.
 Sir Francis Channing.
 Mr. Cheetham.
 Mr. Jesse Collings.
 Mr. Ellis Davies.
 Mr. Dickinson.
 Major Dunne.
 Mr. Essex.
 Mr. Corrie Grant.
 Mr. Guest.
 Mr. Harcourt.
 Mr. Howard.
 Mr. Leif Jones.
 Mr. Lehmann.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Nussey.
 Mr. Parker.
 Mr. Pickersgill.
 Mr. William Priestley.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Soares.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Wedgwood.
 Mr. George White.
 Mr. Tyson Wilson.
 Mr. Winfrey.

Question, "That the Clause be added to the Bill,"—put, and *agreed to*.

Another New Clause ("Delegation of powers to councils of boroughs or urban districts") brought up and read the first and second time as follows:

"A county council may make arrangements with the council of any borough or urban district in the county for the exercise by the council of that borough or district, on such terms and subject to such conditions as may be agreed on, of any powers of the county council in respect of the acquisition, adaptation, and management of small holdings for the borough or district, and the council of the borough or district may, as part of the arrangement, undertake to pay the whole or any part of the loss (if any) incurred in connection with those small holdings, and any sum payable in pursuance of any such undertaking shall be defrayed as part of the general expenses of the council in the execution of the Public Health Acts"

—(*Mr. Harcourt*).

Amendment proposed, in line 5, to leave out the word "may," and insert the word "shall"—(*Mr. Hicks Beach*)—instead thereof.—Question, "That the word 'may' stand part of the Clause,"—put, and *agreed to*.

Another Amendment proposed, in line 7, after the word "holdings," to insert the words "provided that no loss incurred in connection with small holdings outside the area of such borough or district council shall be a charge on any borough or council

making such arrangement"—(*Mr. Wedgwood*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 6.

Sir John Bethell.
Sir Francis Channing.
Mr. Cheetham.
Mr. Ernest Gardner.
Mr. Nussey.
Mr. Wedgwood.

Noes, 39.

Mr. Barran.
Mr. Hicks Beach.
Mr. Beckett.
Mr. Bennett.
Mr. Bowles.
Mr. Bramsdon.
Mr. Bridgeman.
Mr. Burns.
Mr. Carlile.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Ellis Davies.
Mr. Dickinson.
Major Dunne.
Mr. Clement Edwards.
Mr. Essex.
Mr. Denison Faber.
Mr. Corrie Grant.
Mr. Gretton.
Mr. Guest.
Mr. Harcourt.
Captain Hervey.
Mr. Howard.
Mr. Leif Jones.
Mr. Lehmann.
Mr. Masterman.
Mr. Morrell.
Mr. Parker.
Mr. Pickersgill.
Mr. William Priestley.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Soares.
Mr. Verney.
Mr. Dudley Ward.
Mr. George White.
Mr. Tyson Wilson.
Lord Willoughby de Eresby.

Question, "That the Clause be added to the Bill,"—put, and *agreed to*.

Another new Clause ("Compensation for loss of employment by labourers") brought up and read the first and second time as follows :

"Where a labourer who has been regularly employed on any land acquired by a county council for small holdings, proves to the satisfaction of the county council that the effect of the acquisition was to deprive him of his employment, and that there was no employment of an equally beneficial character available to him in the same locality, the county council may pay to him such compensation as they think just for his loss of employment or for his expenses in moving to another locality, and any sum so paid shall be treated as part of the expenses of the acquisition of the land"

—(*Mr. Harcourt*).

Amendment proposed, in line 1, to leave out the words "a labourer," and

insert the words "any person employed in agriculture for wages"—(*Mr. Gretton*)—instead thereof.—Question put, "That the words 'a labourer' stand part of the Clause."—The Committee divided :

Ayes, 32.

Mr. Barran.
Mr. Bennett.
Sir John Bethell.
Mr. Bramsdon.
Mr. Burns.
Sir Francis Channing.
Mr. Cheetham.
Mr. Ellis Davies.
Mr. Dickinson.
Major Dunne.
Mr. Clement Edwards.
Mr. Essex.
Mr. Corrie Grant.
Mr. T. M. Healy.
Mr. Howard.
Mr. Leif Jones.
Mr. Lehmann.
Mr. Masterman.
Mr. Morrell.
Mr. Parker.
Mr. Pickersgill.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Silcock.
Mr. Soames.
Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. Wedgwood.
Mr. George White.
Mr. Tyson Wilson.

Noes, 13.

Mr. Hicks Beach.
Mr. Bowles.
Mr. Bridgeman.
Mr. Carlile.
Mr. Chaplin.
Mr. Jessie Collings.
Mr. Courthope.
Mr. Ernest Gardner.
Mr. Gretton.
Mr. Guest.
Captain Hervey.
Viscount Morpeth.
Lord Willoughby de Eresby.

Another Amendment proposed, in line 2, after the second word "council," to insert the words "either directly or through a parish council"—(*Mr. Verney*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in line 4, to leave out the word "was," and insert the word "is"—(*Mr. Gretton*)—instead thereof. Question put, "That the word 'was' stand part of the Clause."—The Committee divided :

Ayes, 37.

Mr. Barran.
Sir John Bethell.
Mr. Bramsdon.
Mr. Burns.
Sir Francis Channing.
Mr. Cheetham.
Mr. Jesse Collings.
Mr. Ellis Davies.
Mr. Dickinson.

Noes, 12.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bowles.
Mr. Bridgeman.
Mr. Carlile.
Mr. Courthope.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Gretton.

Ayes—continued.

Major Dunne.
 Mr. Clement Edwards.
 Mr. Essex.
 Mr. Corrie Grant.
 Mr. Guest.
 Mr. Harcourt.
 Mr. T. M. Healy.
 Mr. Howard.
 Mr. Leif Jones.
 Mr. Lehmann.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Nussey.
 Mr. Parker.
 Mr. Pickersgill.
 Mr. Rees.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Silcock.
 Mr. Soames.
 Mr. Soares.
 Mr. Solicitor-General.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Wedgwood.
 Mr. George White.
 Mr. Tyson Wilson.

Noes—continued.

Captain Hervey.
 Viscount Morpeth
 Lord Willoughby de Eresby.

Another Amendment proposed, in line 4, after the word "employment," to insert the words "on the land"—(*Mr. Denison Faber*).—Question, "That those words be there inserted,"—put, and *negatived*.

Another Amendment proposed, in line 5, to leave out the word "may," and insert the word "shall"—(*Mr. Carlile*)—instead thereof.—Question, "That the word 'may' stand part of the Clause,"—put, and *agreed to*.

Motion made and Question, "That the Committee do continue to sit this day notwithstanding the sitting of the House"—(*Mr. Harcourt*),—put, and *agreed to*.

Another Amendment proposed, in line 7, at the end of the Clause, to add the words :

"(2) When a tenant farmer receives notice to quit, and such notice has been given by reason of the acquisition for small holdings of the whole or any portion of the land tenanted by him, he shall, on the termination of his tenancy, be entitled to be paid reasonable compensation for disturbance, the amount of which shall, in default of agreement, be determined by arbitration and shall be paid out of the Small Holdings Account."

—(*Mr. Soares*).—Question proposed, "That those words be there added."

Amendment proposed to the proposed Amendment, to leave out all the words from the word "when," in line 1, to the word "shall," in line 5, and insert the words :

"the tenant of any holding receives notice from a council to quit and such notice has been given by reason of the acquisition, or proposed acquisition, for small holdings or allotments of the whole or any portion of his holding the Council shall pay to the tenant all compensation, if any, to which he may be entitled on quitting, and in addition compensation for the loss or expense directly attributable to his quitting such

land which the tenant may unavoidably incur upon or in connection with the sale or removal of his household goods, or his implements of husbandry, produce, or farm stock on or used in connection with such land, and the amount of such compensation "

—(*Mr. Chaplin*)—instead thereof. Question put, "That the words proposed to be left out stand part of the proposed Amendment."—The Committee divided :

Ayes, 34.

Mr. Alden.
Mr. Barran.
Sir John Bethell
Mr. Burns.
Mr. Cheetham.
Sir Randal Cremer.
Mr. Cullinan.
Major Dunne.
Mr. Clement Edwards.
Mr. Harcourt.
Mr. Hayden.
Mr. T. M. Healy.
Mr. Howard.
Mr. Leif Jones.
Mr. Lehmann.
Mr. Masterman.
Mr. Morrell.
Mr. Napier.
Mr. Nussey.
Mr. Parker.
Mr. Pickersgill.
Mr. William Priestley.
Mr. William Redmond.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Soames
Mr. Solicitor-General.
Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. Wedgwood.
Mr. George White.
Mr. Tyson Wilson.

Noes, 16.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bowles.
Mr. Bridgeman.
Mr. Carlile.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Ellis Davies.
Mr. Denison Faber.
Mr. Ernest Gardner.
Mr. Corrie Grant.
Mr. Guest.
Captain Hervey.
Viscount Morpeth.
Mr. Soares.
Lord Willoughby de Eresby.

Another Amendment proposed to the proposed Amendment, in line 2, to leave out the words "or any portion"—(*Mr. Corrie Grant*).—Question put, "That the words 'or any portion' stand part of the proposed Amendment."—The Committee divided :

Ayes, 10.

Mr. Harmood-Banner.
Sir John Bethell.
Mr. Bowles.
Mr. Bridgeman.
Mr. Carlile.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Denison Faber.
Mr. Ernest Gardner.
Lord Willoughby de Eresby.

Noes, 32.

Mr. Barran.
Mr. Hicks Beach.
Mr. Burns.
Mr. Cheetham.
Sir Randal Cremer.
Mr. Cullinan.
Mr. Ellis Davies.
Major Dunne.
Mr. Clement Edwards.
Mr. Essex.

Noes—*continued*.

Mr. Corrie Grant.
Mr. Guest.
Mr. Harcourt.
Mr. Hayden.
Mr. T. M. Healy.
Mr. Howard.
Mr. Leif Jones.
Viscount Morpeth.
Mr. Morrell.
Mr. Napier.
Mr. Parker.
Mr. William Priestley.
Mr. William Redmond.
Mr. Rees.
Mr. Rogers.
Mr. Silcock.
Mr. Soares.
Mr. Verney.
Mr. Dudley Ward.
Mr. Wedgwood.
Mr. George White.
Mr. Tyson Wilson.

[Adjourned till to-morrow at half-past eleven o'clock.]

Thursday, 1st August, 1907.

MEMBERS PRESENT :

Mr. STUART WORTLEY in the Chair.

Mr. Harmood-Banner.	Captain Hervey.
Mr. Barran.	Mr. Howard.
Mr. Hicks Beach.	Mr. Leif Jones.
Mr. Beckett.	Mr. Lehmann.
Mr. Bennett.	Mr. Masterman.
Sir John Bethell.	Viscount Morpeth.
Mr. Bowles.	Mr. Morrell.
Mr. Brace.	Mr. Nicholls.
Mr. Bridgeman.	Mr. Nussey.
Mr. Burns.	Mr. Parker.
Mr. Cave.	Mr. Pickersgill.
Sir Francis Channing.	Mr. William Priestley.
Mr. Chaplin.	Mr. Rees.
Mr. Cheetham.	Mr. George Roberts.
Mr. Jesse Collings.	Sir George Scott Robertson.
Mr. Courthope.	Mr. Rogers.
Sir Randal Cremer.	Mr. Rowlands.
Mr. Ellis Davies.	Mr. Soames.
Sir John Dickson-Poynder.	Mr. Solicitor-General.
Major Dunne.	Sir Edward Strachey.
Mr. Clement Edwards.	Mr. Verney.
Mr. Ernest Gardner.	Mr. Walker.
Mr. Corrie Grant.	Mr. Dudley Ward.
Mr. Gretton.	Mr. Wedgwood.
Mr. Guest.	Mr. George White.
Mr. Harcourt.	Mr. Tyson Wilson.
Mr. Hayden.	Mr. Winfrey.

SMALL HOLDINGS AND ALLOTMENTS BILL.

Proposed New Clause ("Compensation for loss of employment by labourers") further considered.

Amendment, as amended, again proposed, at the end of the Clause, to add the words :

"(2) When a tenant farmer receives notice to quit, and such notice has been given by reason of the acquisition for small holdings of the whole of the land tenanted by him, he shall, on the termination of his tenancy, be entitled to be paid reasonable compensation for disturbance, the amount of which shall, in default of agreement, be determined by arbitration and shall be paid out of the Small Holdings Account.

—(*Mr. Soares*).

Another Amendment proposed to the proposed Amendment, in line 5, to leave out the words "shall be paid out of the Small Holdings Account," and insert the words "any sum so paid shall be treated as part of the expenses of the acquisition of the land"—(*Mr. Corrie Grant*)—instead thereof.—Question, "That the words proposed to be left out stand part of the proposed Amendment—put, and *agreed to*."

Question, "That the words "(2) When a tenant farmer receives notice to quit, and such notice has been given by reason of the acquisition for small holdings of the whole of the land tenanted by him, he shall, on the termination of his tenancy, be entitled to be paid reasonable compensation for disturbance, the amount of which shall, in default of agreement, be determined by arbitration and shall be paid out of the Small Holdings Account," be there added,"—put, and *negatived*."

Question, "That the Clause be added to the Bill,"—put, and *agreed to*."

Another new Clause ("Erection of buildings and advances made to purchasers") brought up and read the first time as follows :

"(1) The county council may advance to a purchaser of a small holding any money not exceeding nine-tenths of the cost for the purpose of erecting on the small holding a dwelling-house and such other buildings or making such adaptations of existing buildings as in their opinion are desirable for the due occupation of the small holding, provided that the requisite plans and specifications are previously submitted to and approved by the county council.

(2) Sub-section three of section six of The Small Holdings Act, 1892, is hereby repealed, and the following provision shall be substituted therefor, that is to say : 'A purchaser of a small holding shall, on the completion of the purchase, pay not less than one-tenth of the purchase money, provided that the county council under special circumstances may, if they deem it advisable, advance to a purchaser of a small holding the whole of the purchase money' "

—(*Mr. Jesse Collings*).—Question put, "That the Clause be read a second time."—The Committee divided :

Ayes, 11.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Mr. Cave.

Noes, 31.

Mr. Bennett.
Mr. Burns.
Sir Randal Cremer.
Mr. Ellis Davies.

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Ayes—continued.

Sir Francis Channing.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Courthope.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Viscount Morpeth.

Noes—continued.

Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Corrie Grant.
 Mr. Guest.
 Mr. Harcourt.
 Mr. Howard.
 Mr. Lehmann.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. Parker.
 Mr. Pickersgill.
 Mr. William Priestley.
 Mr. Rees.
 Mr. George Roberts.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Soames.
 Mr. Solicitor-General.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Wedgwood.
 Mr. Tyson Wilson.
 Mr. Winfrey.

Another new Clause ("Right of purchase of land diverted from agriculture") brought up and read the first time as follows :

"Section eleven of The Small Holdings Act, 1892, is hereby repealed, and the following provisions shall be substituted therefor, that is to say : ' If, at any time after the restrictive conditions imposed by The Small Holdings Act, 1892 have ceased to attach to a small holding, the owner of the holding desires to use the holding for purposes other than agriculture, he shall before doing so, whether the holding is situate within a town or built upon or not, offer the holding for sale to the county council from whom the holding was purchased, and sections one hundred and twenty-seven to one hundred and thirty of The Lands Clauses Consolidation Act, 1845, shall apply as if the owner of the small holding were the promoter of the undertaking and the holding were superfluous lands within the meaning of those sections ' "

—(*Mr. Jesse Collings*).—Question proposed, "That the Clause be read a second time."

Clause, by leave, *withdrawn*.

Another New Clause ("Amendment of Section 11 of the Act of 1892") brought up and read the first time as follows :

"In section eleven of the Small Holdings Act 1892 (which relates to the right of purchase if a small holding is diverted from agriculture) the words 'and then to the person or persons whose lands immediately adjoin the holding' shall be repealed"

—(*Mr. Harcourt*).

Clause read a second time and added to the Bill.

Another New Clause ("Advances to sitting tenant for purchase of holding") brought up and read the first time as follows :

"In Part II., section seventeen, sub-section one, of The Small Holdings Act, 1892, which relates to tenants purchasing small holdings, the words 'nine-tenths' shall be substituted for the words 'four-fifths'."

—(Mr. Jesse Collings).—Question put, "That the Clause be read a second time."—The Committee divided :

Ayes, 14.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bowles.
Mr. Bridgeman.
Mr. Cave.
Sir Francis Channing.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Courthope.
Mr. Ellis Davies.
Sir John Dickson-Poynder.
Mr. Ernest Gardner.
Mr. Gretton.
Viscount Morpeth.

Noes, 28.

Mr. Bennett.
Mr. Cheetham.
Sir Randal Cremer.
Major Dunne.
Mr. Guest.
Mr. Harcourt.
Mr. Howard.
Mr. Lehmann.
Mr. Masterman.
Mr. Morrell.
Mr. Nicholls.
Mr. Nussey.
Mr. Parker.
Mr. Pickersgill.
Mr. William Priestley.
Mr. Rees.
Mr. George Roberts.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Soames.
Mr. Solicitor-General.
Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. Wedgwood.
Mr. Tyson Wilson.
Mr. Winfrey.

Another New Clause ("Compensation on determination of tenancy") brought up and read the first time as follows :

"Where a council has hired land compulsorily, they shall, upon the determination of the tenancy, pay to the landlord full compensation—

- (a) for any depreciation of the land by reason of the user thereof by the council or any person deriving title under them for the purposes of small holdings or allotments; and
- (b) for any loss which the landlord may sustain by reason of such land having been rendered unsuitable for letting or occupation as part of the holding or holdings from which the same was originally severed"

—(Mr. Chaplin).—Question proposed, "That the Clause be read a second time."

Clause, by leave, *withdrawn*.

Another New Clause ("Advances by Public Works Loan Commissioners") brought up and read the first time as follows :

- "(1) The Public Works Loan Commissioners may, out of the funds at their

disposal, advance on loan to any person entitled to any land for an estate in fee simple or for any term of years absolute whereof not less than fifty years shall for the time being remain unexpired such money as may be required for the purpose of adapting such land for small holdings, including the erection thereon of such buildings as may be required for the due occupation of the land as small holdings.

(2) Such loans shall be made in manner provided by The Public Works Loans Act, 1875, subject to the following provisions :—

- (a) The period for the repayment of the loan shall not exceed fifty years ;
- (b) No money shall be advanced on mortgage of any land or buildings solely, unless the estate therein proposed to be mortgaged shall be either an estate in fee simple or an estate for a term of years absolute, whereof not less than fifty years shall be unexpired at the date of the advance ;
- (c) The money advanced on the security of any land or buildings solely shall not exceed four-fifths of the value, to be ascertained to the satisfaction of the Public Works Loan Commissioners, of the estate or interest in such land or buildings proposed to be mortgaged, but advances made by instalments from time to time as the work of adapting the land progresses, so that the total advances do not at any time exceed the amount aforesaid, and a mortgage may be accordingly made to secure such advances so to be made from time to time.

(3) Any such loan shall be made at the minimum rate allowed for the time being for loans out of the local loans fund ”

—(*Mr. Hicks Beach*).—Question proposed, “That the Clause be read a second time.”

Clause, by leave, *withdrawn*.

Another New Clause (“Improvements on which capital may be expended”) brought up and read the first time as follows :

“The improvements on which capital money may be expended, enumerated in section twenty-five of The Settled Land Act, 1882, and referred to in section thirty of the said Act, shall include the adaptation of land for small holdings, including the erection thereon of such buildings as may be required for the occupation of the land as small holdings.

Question proposed, “That the Clause be read a second time.”

Clause, by leave, *withdrawn*.

Another New Clause (“Provisions as to glebe lands”) brought up and read the first time as follows :

“In the case of glebe land or other land belonging to an ecclesiastical benefice hired by a council for the purposes of small holdings or allotments :—

- (1) The provisions of The Ecclesiastical Dilapidations Act, 1871, shall not during the continuance of the tenancy be applicable to the buildings upon the land ;
- (2) At the determination of the tenancy, on the council quitting the land, or at any time within twelve months thereafter, the incumbent of the benefice to which the land belongs may apply to the Ecclesiastical Commissioners for their consent to the removal of any buildings which have been erected on the land for the purpose of adapting the land for small holdings or allotments, and on proof to the satisfaction of the Commissioners that any such buildings are useless, and that it is to the interest of the benefice that they should be removed, the incumbent may, with the consent of the Commissioners and subject to such directions as they may give, pull down any such buildings and dispose of the materials

thereof, and any proceeds shall be paid to the Commissioners to be by them applied to the improvement of the benefice in such manner as the Commissioners may direct."

—(*Mr. Bridgeman*).

Clause read a second time and added to the Bill.

Another New Clause ("Postponement of rent") brought up and read the first time as follows :

"The county council may, if they think fit, agree to postpone for a term not exceeding two years the payment of the whole or any part of the rent due, in consideration of bad seasons, of any expenditure by the small holder which, in the opinion of the council, increases the value of the holding, or for any other reason which the council may deem sufficient"

—(*Mr. Jesse Collings*).—Question proposed, "That the Clause be read a second time."

Clause, by leave, *withdrawn*.

Another New Clause ("Abatement of rent") brought up and read the first time as follows :

"The county council, as landlords, may abate any part of the rent due in any one year if they should deem it advisable to do so"

—(*Mr. Jesse Collings*).—Question, "That the Clause be read a second time,"—put, and *negatived*.

Motion made, and Question, "That the Committee do continue to sit this day notwithstanding the sitting of the House"—(*Mr. Harcourt*)—put, and *agreed to*.

Schedule 1.

Amendment proposed, in page 18, lines 9 and 10, to leave out the words "subject to the prescribed adaptations, so much of"—(*Mr. Chaplin*).—Question put, "That the words 'subject to the' stand part of the Schedule."—The Committee divided :

Ayes, 28.

Mr. Cheetham.
Sir Randal Cremer.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Corrie Grant.
Mr. Howard.
Mr. Leif Jones.
Mr. Lehmann.
Mr. Masterman.
Mr. Morrell.
Mr. Nicholls.
Mr. Nussey.
Mr. Parker.
Mr. Pickersgill.
Mr. Rees.
Mr. George Roberts.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Soames.

Noes, 10.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Courthope.
Mr. Ernest Gardner.
Mr. Gretton.
Captain Hervey.
Viscount Morpeth.

Ayes—*continued*.

Mr. Solicitor-General.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Wedgwood.
 Mr. George White.
 Mr. Tyson Wilson.
 Mr. Winfrey.

An Amendment made, in page 18, line 9, by leaving out the word "prescribed," and inserting the word "necessary"—(*Mr. Solicitor-General*)—instead thereof.

Another Amendment made, in page 18, lines 9 and 10, by leaving out the words "so much of"—(*Mr. Solicitor-General*).

Another Amendment made, in page 18, lines 11 and 12, by leaving out the words "as appear to the Board necessary for that purpose"—(*Mr. Solicitor-General*).

Another Amendment proposed, in page 18, line 13, after the word "appointed," to insert the words "in default of agreement"—(*Mr. Chaplin*).—Question, "That those words be there inserted,"—put, and *negatived*.

Another Amendment made, in page 18, line 17, after the word "accordingly," by inserting the words:

"(2) Where the land is glebe land or other land belonging to an ecclesiastical benefice the order shall provide that sums agreed upon or awarded for the purchase of the land, or to be paid by way of compensation for the damage to be sustained by the owner by reason of severance or other injury affecting the land, shall not be paid as directed by the Lands Clauses Acts, but shall be paid to the Ecclesiastical Commissioners to be applied by them as money paid to them upon a sale under the provisions of the Ecclesiastical Leasing Acts of land belonging to a benefice"

—(*Mr. Bridgeman*).

Another Amendment made, in page 18, line 33, by leaving out Subsection (5)—(*Mr. Solicitor-General*).

Another Amendment proposed, in page 19, line 1, to leave out Subsection (6)—(*Mr. Chaplin*).—Question put, "That the words proposed to be left out to the word 'acquired,' in line 3, stand part of the Schedule."—The Committee divided:

Ayes, 27.

Sir Randal Cremer.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Mr. Howard.
 Mr. Leif Jones.
 Mr. Lehmann.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. Parker.
 Mr. Rees.
 Mr. George Roberts.

Noes, 9.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Courthope.
 Mr. Ernest Gardner.
 Captain Hervey.
 Viscount Morpeth.

Ayes—continued.

Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Soames.
 Mr. Solicitor-General.
 Mr. Verney.
 Mr. Walker.
 Mr. Dudley Ward.
 Mr. Wedgwood.
 Mr. George White.
 Mr. Tyson Wilson.
 Mr. Winfrey

Another Amendment proposed, in page 19, line 3, to leave out all the words from the word "acquired" to the word "owner," in line 4, inclusive, and insert the words "such notice to quit as the owner might have served, and such notice shall have the like effect as if it had been given by the owner, but the council shall pay to the tenant all compensation, if any, to which he would have been entitled if his tenancy had been determined otherwise than under the provisions of this Act"—(*Mr. Chaplin*)—instead thereof.—Question put, "That the words proposed to be left out stand part of the Schedule."—The Committee divided :

Ayes, 31.

Mr. Barran.
 Sir John Bethell.
 Mr. Burns.
 Sir Randal Cremer.
 Mr. Ellis Davies.
 Sir John Dickson-Poynder.
 Major Dunne.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Mr. Hayden.
 Mr. Howard.
 Mr. Leif Jones.
 Mr. Lehmann.
 Mr. Masterman.
 Mr. Morrell.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. Parker.
 Mr. Rees.
 Mr. George Roberts.
 Sir George Scott Robertson.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Soames.
 Mr. Solicitor-General.
 Mr. Verney.
 Mr. Dudley Ward.
 Mr. Wedgwood.
 Mr. George White.
 Mr. Tyson Wilson.
 Mr. Winfrey.

Noes, 11.

Mr. Hicks Beach.
 Mr. Beckett.
 Mr. Bridgeman.
 Sir Francis Channing.
 Mr. Chaplin.
 Mr. Jesse Collings.
 Mr. Courthope.
 Mr. Ernest Gardner.
 Mr. Gretton.
 Captain Hervey.
 Viscount Morpeth.

Another Amendment proposed, in page 19, line 6, after the word "experience," to insert the words "and shall take into consideration the rent (if any) at which the

land has been last let, and the annual value at which the land is assessed for the purposes of rating ”

—(*Mr. Wedgwood*).—Question put, “That those words be there inserted.”—The Committee divided :

Ayes, 28.

Mr. Barran.
Mr. Bennett.
Sir John Bethell.
Mr. Brace.
Mr. Burns.
Mr. Ellis Davies.
Major Dunne.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. Lehmann.
Mr. Masterman.
Mr. Morrell.
Mr. Nicholls.
Mr. Parker.
Mr. Pickersgill.
Mr. Rees.
Mr. George Roberts.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Soames.
Mr. Solicitor-General.
Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. Wedgwood.
Mr. Tyson Wilson.
Mr. Winfrey.

Noes, 9.

Mr. Hicks Beach.
Mr. Beckett.
Mr. Bridgeman.
Mr. Chaplin.
Mr. Courthope.
Mr. Ernest Gardner.
Mr. Gretton.
Captain Hervey.
Viscount Morpeth.

Another Amendment proposed, in page 19, line 6, after the word “rating,” at the end of the last Amendment, to insert the words “and shall, in assessing the amount of compensation, deduct any increased value of the land which can be estimated as being due to the operation of this Act”

—(*Mr. Masterman*).—Question put, “That those words be there inserted.”—The Committee divided :

Ayes, 17.

Mr. Bennett.
Sir John Bethell.
Sir Francis Channing.
Mr. Ellis Davies.
Mr. Lehmann.
Mr. Masterman.
Mr. Morrell.
Mr. Nicholls.
Mr. Parker.
Mr. Pickersgill.
Mr. George Roberts.
Sir George Scott Robertson.
Mr. Rowlands.
Mr. Verney.

Noes, 22.

Mr. Barran.
Mr. Hicks Beach.
Mr. Beckett.
Mr. Burns.
Mr. Cave.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Courthope.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Corrie Grant.
Mr. Harcourt.
Captain Hervey.
Mr. Howard.

Ayes—*continued*.

Mr. Walker.
Mr. Wedgwood.
Mr. Tyson Wilson.

Noes—*continued*.

Viscount Morpeth.
Mr. Nussey.
Mr. Rees.
Mr. Rogers.
Mr. Soames.
Mr. Solicitor-General.
Mr. Dudley Ward.
Mr. Winfrey.

Another Amendment proposed, in page 19, line 10, to leave out all the words from the word "witnesses" to the word "witnesses" in line 11, inclusive—(*Mr. Cave*).

—Question put, "That the words proposed to be left out stand part of the Schedule."

—The Committee divided:

Ayes, 30.

Mr. Barran.
Mr. Bennett.
Sir Francis Channing.
Mr. Cheetham.
Sir Randal Cremer.
Mr. Ellis Davies.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. Howard.
Mr. Lehmann.
Mr. Masterman.
Mr. Morrell.
Mr. Nicholls.
Mr. Nussey.
Mr. Parker.
Mr. Pickersgill.
Mr. George Roberts.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Soames.
Mr. Solicitor-General.
Mr. Verney.
Mr. Walker.
Mr. Dudley Ward.
Mr. Wedgwood.
Mr. Tyson Wilson.
Mr. Winfrey.

Noes, 6.

Mr. Hicks Beach.
Mr. Cave.
Mr. Chaplin.
Mr. Courthope.
Captain Hervey.
Viscount Morpeth.

Another Amendment proposed, in page 19, line 11, after the word "witnesses," to insert the words:

"But when the unimproved value of any land to be acquired under this Act shall have been ascertained under any Act of Parliament which shall hereafter be passed for the general valuation of land for purposes of rating or taxation, the compensation to be paid for such land shall be the registered capital values with such additional sum which may be assessed as the value of the buildings and unexhausted improvements"

—(*Mr. Masterman*).—Question put, "That those words be there inserted."—The Committee divided:

Ayes, 5.

Mr. Ellis Davies.
 Mr. Masterman.
 Mr. Pickersgill.
 Mr. Wedgwood.
 Mr. Tyson Wilson.

Noes, 27.

Mr. Barran.
 Mr. Hicks Beach.
 Mr. Bennett.
 Sir John Bethell.
 Mr. Bridgeman.
 Sir Francis Channing.
 Mr. Chaplin.
 Mr. Cheetham.
 Mr. Courthope.
 Sir Randal Cremer.
 Sir John Dickson-Poynder.
 Mr. Corrie Grant.
 Mr. Harcourt.
 Captain Hervey.
 Mr. Howard.
 Viscount Morpeth.
 Mr. Nicholls.
 Mr. Nussey.
 Mr. Rees.
 Mr. Rogers.
 Mr. Rowlands.
 Mr. Soames.
 Mr. Solicitor-General.
 Sir Edward Strachey.
 Mr. Verney.
 Mr. Dudley Ward.
 Mr. Winfrey.

Another Amendment made, in page 19, line 26, by inserting at the beginning the words :

“(1) The Board shall make regulations for the purpose of carrying the order into effect and of protecting the council and the persons interested in the land, and the order shall incorporate such regulations, together with such provisions of the Lands Clauses Acts and of sections seventy-seven to eighty-five of The Railways Clauses Consolidation Act, 1845, as may, subject to the prescribed adaptations, appear to the Board necessary or expedient for that purpose.”

—(*Mr. Solicitor-General*).

Another Amendment proposed, in page 19, line 27, after the word “rent,” to insert the words “and in particular shall provide for the insertion in the lease of covenants by the council to cultivate the land in a proper manner and to pay to the landlord at the determination of the tenancy on the council quitting the land compensation for any depreciation of the land by reason of any failure by the council, or any person deriving title under them, to observe such covenants or by reason of any user of the land by the council or such person as aforesaid, and shall not authorise the breaking up of pasture unless the Board are satisfied that it can be so broken up without depreciating the value of the land, or that the circumstances are such that small holdings cannot otherwise be successfully cultivated, and shall not confer on the council any right to take, sell, or carry away any gravel, sand, or clay”—(*Mr. Harcourt*).—Question proposed, “That those words be there inserted.”

Amendment proposed to the proposed Amendment, in line 9, after the word “cultivated,” to insert the words “in which case the owner may require the council to purchase the land at a price to be settled in default of agreement by arbitration”—(*Mr. Chaplin*).—Question put, “That those words be there inserted in the proposed Amendment.”—The Committee divided :

Ayes, 8.

Mr. Hicks Beach.
Mr. Bridgeman.
Mr. Chaplin.
Mr. Courthope.
Mr. Gretton.
Captain Hervey.
Viscount Morpeth.
Mr. Walker.

Noes, 24.

Mr. Barran.
Sir John Bethell.
Mr. Cheetham.
Sir Randal Cremer.
Mr. Ellis Davies.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Corrie Grant.
Mr. Harcourt.
Mr. Howard.
Mr. Masterman.
Mr. Morrell.
Mr. Nicholls.
Mr. Nussey.
Mr. Rees.
Mr. Rogers.
Mr. Rowlands.
Mr. Solicitor-General.
Sir Edward Strachey.
Mr. Verney.
Mr. Dudley Ward.
Mr. Wedgwood.
Mr. Tyson Wilson.
Mr. Winfrey.

Question, "That those words be there inserted,"—put, and *agreed to*.

[Adjourned till to-morrow at half-past eleven o'clock.]

Friday, 2nd August, 1907.

MEMBERS PRESENT:

Mr. STUART WORTLEY in the Chair.

Mr. Harmood-Banner.
Mr. Hicks Beach.
Mr. Bennett.
Mr. Bowles.
Mr. Burns.
Mr. Cave.
Sir Francis Channing.
Mr. Chaplin.
Mr. Cheetham.
Mr. Jesse Collings.
Sir Randal Cremer.
Mr. Cullinan.
Mr. Dickinson.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Clement Edwards.
Mr. Essex.
Mr. Denison Faber.
Mr. Corrie Grant.
Mr. Gretton.
Mr. Guest.
Mr. Harcourt.

Mr. Howard.
Mr. Leif Jones.
Mr. Lehmann.
Mr. Masterman.
Viscount Morpeth.
Mr. Morrell.
Mr. Nicholls.
Mr. Nussey.
Mr. Parker.
Mr. Pickersgill.
Mr. William Priestley.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Solicitor-General.
Sir Edward Strachey.
Mr. Verney.
Mr. Dudley Ward.
Mr. George White.
Mr. Tyson Wilson.
Mr. Winfrey.

SMALL HOLDINGS AND ALLOTMENTS BILL.

Schedule 1 further considered.

Motion made and Question, "That the Committee do continue to sit this day notwithstanding the sitting of the House"—(*Mr. Harcourt*),—put, and *agreed to*.

Another Amendment proposed, in page 19, line 27, after the word "rent," to insert the words "and in particular shall provide for the insertion in the lease of covenants by the council to duly preserve the premises demised, and to pay full compensation to the landlord, on the determination of the tenancy, for any failure by the council or any person deriving title under them to observe such covenants"—(*Mr. Denison Faber*).—Question proposed, "That those words be there inserted.

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 19, line 28, to leave out the words "The determination of"—(*Mr. Chaplin*).—Question put, "That the words proposed to be left out stand part of the Schedule."—The Committee divided :

Ayes, 31.

Mr. Bennett.
Sir Francis Channing.
Mr. Cheetham.
Sir Randal Cremer.
Sir John Dickson-Poynder.
Major Dunne.
Mr. Clement Edwards.
Mr. Essex.
Mr. Corrie Grant.
Mr. Guest.
Mr. Harcourt.
Mr. Howard.
Mr. Leif Jones.
Mr. Lehmann.
Mr. Morrell.
Mr. Nicholls.
Mr. Nussey.
Mr. Parker.
Mr. Pickersgill.
Mr. William Priestley.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Solicitor-General.
Sir Edward Strachey.
Mr. Verney.
Mr. Dudley Ward.
Mr. George White.
Mr. Tyson Wilson.
Mr. Winfrey.

Noes, 9.

Mr. Harmood-Banner.
Mr. Hicks Beach.
Mr. Bowles.
Mr. Cave.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Denison Faber.
Mr. Gretton.
Viscount Morpeth.

Another Amendment proposed, in page 19, line 36, to leave out all the words from the first word "the" to the word "term," in line 37, inclusive, and insert the words "apportionment of the rent between the land taken by the Council and the land not taken from the tenant"—(*Mr. Chaplin*)—instead thereof.—Question, "That the words proposed to be left out stand part of the Schedule,"—put, and *agreed to*.

Another Amendment proposed, in page 19, line 38, after the word "appointed," to insert the words "failing agreement"—(*Mr. Chaplin*).—Question, "That those words be there inserted,"—put, and *negatived*.

Another Amendment proposed, in page 19, line 41, and page 20, line 1, to leave out the words "and the annual value at which the land is assessed for the purposes of rating or taxation"—(*Mr. Hicks Beach*).—Question put, "That the words proposed to be left out stand part of the Schedule."—The Committee divided :

Ayes, 28.

Mr. Bennett.
Sir Francis Channing.
Sir Randal Cremer.
Major Dunne.
Mr. Clement Edwards
Mr. Essex.
Mr. Corrie Grant.
Mr. Guest.
Mr. Harcourt.
Mr. Howard.
Mr. Leif Jones.
Mr. Lehmann.
Mr. Masterman.
Mr. Morrell.
Mr. Nicholls.
Mr. Parker.
Mr. William Priestley.
Mr. Rees.
Sir George Scott Robertson.
Mr. Rogers.
Mr. Rowlands.
Mr. Solicitor-General.
Sir Edward Strachey.
Mr. Verney.
Mr. Dudley Ward.
Mr. George White.
Mr. Tyson Wilson.
Mr. Winfrey.

Noes, 8.

Mr. Harwood-Banner.
Mr. Hicks Beach.
Mr. Bowles.
Mr. Cave.
Mr. Chaplin.
Mr. Jesse Collings.
Mr. Denison Faber.
Mr. Gretton.

Schedule, as amended, *agreed to*.

Schedule 2.

An Amendment made, in page 21, by leaving out lines 11 to 19, inclusive, and inserting the words "subsections (2) (3) and (6) of section ten, and except so far as it relates to urban sanitary authorities, the rest of that section"—(*Mr. Harcourt*)—instead thereof.

Another Amendment made, in page 21, line 42, by leaving out the words "section six," and inserting the words "In subsection (3) of section six the words 'and of applying for the election of allotment managers,' and 'or the Allotments Act, 1890,' and subsection (4) of the same section"—(*Mr. Harcourt*)—instead thereof.

Schedule, as amended, *agreed to*.

Ordered, to Report the Bill, as amended, to the House.

R E P O R T

FROM

STANDING COMMITTEE C

ON THE

Small Holdings and Allotments Bill.

WITH THE

PROCEEDINGS OF THE COMMITTEE.

*Ordered, by The House of Commons, to be Printed,
2 August, 1907.*

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R E P O R T

FROM THE

STANDING COMMITTEE ON SCOTTISH BILLS

ON THE

SMALL LANDHOLDERS (SCOTLAND) BILL.

WITH THE

PROCEEDINGS OF THE COMMITTEE.

*Ordered, by The House of Commons, to be Printed,
30 July, 1907.*

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1907.

1907.

STANDING COMMITTEE ON SCOTTISH BILLS.

[Monday, 4th March, 1907] :—Standing Committees (Chairmen's Panel),—Mr. Stuart-Wortley reported from the Chairmen's Panel; That they had agreed to the following Resolution, That any Member of the Chairman's Panel be and he is hereby empowered to ask any other Member of the Chairman's Panel to take his place in case of necessity.

[Wednesday, 6th March, 1907] :—Standing Committees,—Ordered, That all Standing Committees have leave to print and circulate with the Votes the Minutes of their Proceedings, and any amended Clauses of Bills committed to them.

[Thursday, 25th April, 1907] :—Selection (Scottish Standing Committee),—Sir William Brampton Gurdon reported from the Committee of Selection, That the following Members representing Scottish Constituencies are appointed to serve on the Standing Committee for the consideration of all Public Bills relating exclusively to Scotland and committed to a Standing Committee :—

The Lord Advocate.
Mr. Ainsworth.
Mr. Robert Balfour.
Mr. Barnes.
Mr. Beale.
Sir Arthur Bignold.
Mr. Bryce.
Mr. Buchanan.
Mr. Caldwell.
Sir Henry Campbell-Bannerman.
Mr. Chancellor of the Exchequer.
Mr. Cleland.
Sir Thomas Glen Coats.
Mr. Cochrane.
Mr. Cameron Corbett.
Sir Henry Craik.
Mr. Crombie.
Mr. Cross.
Lord Dalmeny.
Viscount Dalrymple.
Mr. Dalziel.
Mr. Arthur Dewar.
Mr. John Dewar.
Mr. Robert Duncan.
The Master of Elibank.
Mr. Erskine.
Mr. Esselmont.
Mr. Munro Ferguson.
Mr. Findlay.
Major Anstruther-Gray.
Mr. John Gulland.
Mr. Secretary Haldane.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Mr. John Deans Hope.
Sir John Jardine.

Mr. Laidlaw.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. John M'Callum.
Mr. M'Crae.
Sir Lewis M'Iver.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Secretary Morley.
Mr. James Murray.
Mr. Morton.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Dr. Rainy.
Mr. Edmund Robertson.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Mr. Tennant.
Mr. Mitchell-Thomson.
Sir Andrew Torrance.
Sir John Batty Tuke.
Captain Waring.
Mr. Eugene Wason.
Mr. Cathcart Wason.
Mr. Watt.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.
Mr. Williamson.
Mr. M'Kinnon Wood.
Mr. Younger.

[Monday, 29th April, 1907] :—Standing Committees (Chairmen's Panel),—Mr. Stuart-Wortley reported from the Chairmen's Panel; That they had appointed Sir Thomas Esmonde to act as Chairman of Standing Committee A; Mr. John William Wilson to act as Chairman of Standing Committee B; Mr. Laurence Hardy to act as Chairman of Standing Committee C; and Mr. Eugene Wason to act as Chairman of the Standing Committee on Scottish Bills.

[Tuesday, 30th April, 1907] : Small Landholders (Scotland) Bill,—Order read, for resuming Adjourned Debate on Amendment to Question [29th April], "That the Bill be now read a second time :—"

Which Amendment was to leave out from the word "That," to the end of the Question, in order to add the words "this House welcomes State action to promote small holdings; but,

supporting the principle of responsible ownership in land, it believes that the Government policy should be based on purchase, and deprecates the extension of an extreme form of divided ownership to districts beyond those crofter areas where the occupier provides equipment,"—(*Mr. Munro Ferguson*,)—instead thereof :—

Question again proposed, "That the words proposed to be left out stand part of the Question :"
—Debate resumed :—

Question put :—The House *divided* ; Ayes 365, Noes 126.

Main Question put, and *agreed to*.

Bill read a second time :—

Motion made and Question put, "That the Bill be committed to a Committee of the whole House"—(*Mr. Balfour*).

The House *divided* ; Ayes 118, Noes 374.

Bill committed to a Standing Committee.

[*Thursday, 2nd May, 1907.*] :—

STANDING COMMITTEES.

Mr. Speaker being of opinion that the Small Landholders (Scotland) Bill is a Bill relating exclusively to Scotland, the Bill will be considered by the Standing Committee on Scottish Bills.

Sir William Brampton Gurdon *reported* from the Committee of Selection ; That they had added to the Standing Committee on Scottish Bills the following Fifteen Members (in respect of the Small Landholders (Scotland) Bill) : Mr. Seddon, Mr. Vivian, Mr. Brace, Mr. Hugh Law, Mr. McHugh, Mr. McKillop, Mr. James Mason, Viscount Helmsley, Colonel Kenyon-Slaney, Mr. Abel Smith, Sir Samuel Scott, Mr. Long, Sir Frederick Banbury, Mr. Lambton, and Captain Balfour.

[*Monday, 27th May, 1907*] :—Small Landholders (Scotland) [Salaries],—Resolution *reported* ;
"That, for carrying out the provisions of any Act of the present Session to encourage the formation of Small Agricultural Holdings in Scotland, it is expedient to authorise—

- (i.) the payment, out of the Consolidated Fund, of the salaries of the chairman and of each of the other members of the Land Court ;
- (ii.) the payment, out of moneys provided by Parliament, of—
 - (a) the salaries and remuneration of the Agricultural Commissioners and other persons appointed or employed by them and by the Land Court, and the expenses incurred by the Land Court and the Agricultural Commissioners in the execution of their duties ;
 - (b) an annual sum not exceeding eighty-five thousand pounds for the use of the Agricultural Commissioners ;
 - (c) compensation in certain cases to members and officers of the Crofters Commission."

Resolution read a second time :—

Amendment proposed, in Paragraph 2 (a), line 7, after the word "Commissioners," to insert the words "not exceeding three thousand pounds :"—(*Mr. Rawlinson* :)—

Question put, "That those words be there inserted :"—The House *divided* ; Ayes 57, Noes 256.

Another Amendment proposed, in Paragraph 2 (a), line 10, at the end, to insert the words "Provided that the expenses in connection with the Land Court shall not exceed six thousand pounds in any one year, and :"—(*Mr. Rawlinson* :)—

Question put, "That those words be there inserted :"—The House *divided* ; Ayes 79, Noes 274.

Another Amendment proposed, in Paragraph 2 (a), line 10, at the end, to insert the words "Provided that the expenses in connection with the Agricultural Commissioners shall not exceed five thousand pounds :"—(*Mr. Rawlinson* :)—

Question proposed, "That those words be there inserted :"—Debate arising ;

Sir Henry Campbell-Bannerman rose in his place, and claimed to move, "That the Question be now put :"—

Question put, "That the Question be now put :"—The House *divided* ; Ayes 273, Noes 80.

Question put accordingly, "That those words be there inserted :"—The House *divided* ; Ayes 83, Noes 375

Whereupon Sir Henry Campbell-Bannerman claimed, "That the main Question be now put :"—

Main Question put accordingly, "That this House doth agree with the Committee in the said Resolution :"—The House *divided* ; Ayes 275, Noes 84.

[*Wednesday, 29th May, 1907*] :—Sir William Brampton Gurdon further *reported* from the Committee ; That they had added the following Member to the Standing Committee on Scottish Bills (in respect of the Small Landholders (Scotland) Bill) : Lord Willoughby de Eresby.

[*Tuesday, 18th June, 1907*]:—Sir William Brampton Gurdon further *reported* from the Committee; That they had discharged the following Member from the Standing Committee on Scottish Bills (added in respect of the Small Landholders (Scotland) Bill): Lord Willoughby de Eresby; and had appointed in substitution (in respect of the Small Landholders (Scotland) Bill): Mr. Starkey.

R E P O R T.

THE STANDING COMMITTEE ON SCOTTISH BILLS to whom the SMALL LANDHOLDERS (SCOTLAND) BILL was referred;—Have gone through the Bill, and made Amendments thereunto.

30th July, 1907.

STANDING COMMITTEE ON SCOTTISH BILLS.

Tuesday, 7th May, 1907.

MEMBERS PRESENT :

Mr. EUGENE WASON, in the Chair.

The Lord Advocate.	Mr. Lamont.
Mr. Ainsworth.	Mr. Hugh Law.
Sir Frederick Banbury.	Mr. Long.
Mr. Barnes.	Mr. Murray Macdonald.
Mr. Beale.	Mr. M'Callum.
Sir Arthur Bignold.	Mr. M'Crae.
Mr. Brace.	Major M'Micking.
Mr. Bryce.	Mr. James Mason.
Mr. Caldwell.	Mr. Menzies.
Mr. Cleland.	Mr. Molteno.
Sir Thomas Glen Coats.	Mr. Murray.
Mr. Cochrane.	Mr. Morton.
Mr. Cameron Corbett.	Mr. Charles Price.
Sir Henry Craik.	Sir Robert Pullar.
Mr. Crombie.	Dr. Rainy.
Mr. Cross.	Sir Samuel Scott.
Viscount Dalrymple.	Mr. Seddon.
Mr. Arthur Dewar.	Mr. Sinclair.
Mr. John Dewar.	Mr. Smeaton.
Mr. Robert Duncan.	Mr. Abel Smith.
The Master of Elibank.	Mr. Halley Stewart.
Mr. Erskine.	Mr. Solicitor-General for Scotland.
Mr. Esslemont.	Mr. Tennant.
Mr. Munro Ferguson.	Mr. Mitchell-Thomson.
Mr. Findlay.	Sir Andrew Torrance.
Major Anstruther-Gray.	Sir John Batty Tuke.
Mr. Gulland.	Captain Waring.
Mr. Leicester Harmsworth.	Mr. Cathcart Wason.
Viscount Helmsley.	Mr. Watt.
Mr. John Henderson.	Mr. Weir.
Sir John Jardine.	Mr. Wilkie.
Colonel Kenyon-Slaney.	Mr. M'Kinnon Wood.
Mr. Laidlaw.	Mr. Younger.
Mr. Lambton.	

SMALL LANDOWNERS (SCOTLAND) BILL.

Motion made and Question put, "That the Committee do now adjourn"—
(*Mr. Long*).—The Committee divided :

Ayes, 18.	Noes, 43.
Sir Frederick Banbury.	The Lord Advocate.
Mr. Beale.	Mr. Ainsworth.
Sir Arthur Bignold.	Mr Barnes.

Ayes—continued.

Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Sir John Batty Tuke.
 Mr. Younger.

Noes—continued.

Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Cross.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Hugh Law.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Charles Price.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Tennant.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Clause 1.

Motion made and Question put, "That Clause 1 be postponed"—(*Mr. Cochrane*).
 —The Committee divided :

Ayes, 17.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.

Noes, 45.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Cross.
 Mr. Arthur Dewar.
 Mr. John Dewar.

Noes—*continued*.

Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Sir John Batty Tuke.
 Mr. Younger.

Ayes—*continued*.

The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Hugh Law.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Charles Price.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Tennant.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Amendment proposed, in page 1, line 6, after the word "Acts," to insert the words "with the exception of sections one to six inclusive of the Crofters Holding (Scotland) Act 1886"—(*Viscount Helmsley*).—Question proposed, "That those words be there inserted."

[Adjourned till Thursday next at twelve o'clock.]

Thursday, 9th May, 1907.

MEMBERS PRESENT :

Mr. EUGENE WASON, in the Chair.

The Lord Advocate.	Mr. Hugh Law.
Mr. Ainsworth.	Mr. Long.
Captain Balfour.	Mr. Murray Macdonald.
Mr. Robert Balfour.	Mr. M'Callum.
Sir Frederick Banbury.	Mr. M'Crae.
Mr. Barnes.	Major Micking.
Mr. Beale.	Mr. James Mason.
Sir Arthur Bignold.	Mr. Menzies.
Mr. Bryce.	Mr. Molteno.
Mr. Caldwell.	Mr. Murray.
Mr. Cleland.	Mr. Morton.
Sir Thomas Glen Coats.	Sir Robert Pullar.
Mr. Cochrane.	Dr. Rainy.
Sir Henry Craik.	Sir Samuel Scott.
Mr. Crombie.	Mr. Seddon.
Mr. Dalziel.	Mr. Sinclair.
Mr. Arthur Dewar.	Mr. Smeaton.
Mr. John Dewar.	Mr. Abel Smith.
Mr. Robert Duncan.	Mr. Halley Stewart.
The Master of Elibank.	Mr. Solicitor-General for Scotland.
Mr. Erskine.	Mr. Sutherland.
Mr. Esslemont.	Mr. Tennant.
Mr. Munro Ferguson.	Mr. Mitchell-Thomson.
Mr. Findlay.	Sir Andrew Torrance.
Major Anstruther-Gray.	Sir John Batty Tuke.
Mr. Leicester Harmsworth.	Captain Waring.
Viscount Helmsley.	Mr. Cathcart Wason.
Mr. John Henderson.	Mr. Watt.
Sir John Jardine.	Mr. Weir.
Colonel Kenyon-Slaney.	Mr. Wilkie.
Mr. Lambton.	Mr. M'Kinnon Wood.
Mr. Lamont.	Mr. Younger.

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 1, further considered.

Amendment again proposed, in page 1, line 6, after the word "Acts," to insert the words "with the exception of sections one to six inclusive of the Crofters Holding (Scotland) Act, 1886"—(*Viscount Helmsley*).—Question again proposed, "That those words be there inserted."

[Adjourned till Tuesday next, 14th May, at 12 o'clock.]

Tuesday, 14th May, 1907.

MEMBERS PRESENT :

Mr. EUGENE WASON, in the Chair.

The Lord Advocate.	Mr. Long.
Mr. Ainsworth.	Mr. Murray Macdonald.
Sir Frederick Banbury.	Mr. M'Callum.
Mr. Barnes.	Mr. M'Crae.
Sir Arthur Bignold.	Sir Lewis M'Iver.
Mr. Bryce.	Major M'Micking.
Mr. Caldwell.	Mr. James Mason.
Mr. Cleland.	Mr. Molteno.
Sir Thomas Glen Coats.	Mr. Murray.
Mr. Cockrane.	Mr. Morton.
Sir Henry Craik.	Mr. Pirie.
Mr. Crombie.	Mr. Charles Price.
Viscount Dalrymple.	Dr. Rainy.
Mr. Arthur Dewar.	Sir Samuel Scott.
Mr. John Dewar.	Mr. Sinclair.
The Master of Elibank.	Mr. Smeaton.
Mr. Erskine.	Mr. Abel Smith.
Mr. Esslemont.	Mr. Halley Stewart.
Mr. Munro Ferguson.	Mr. Solicitor-General for Scotland.
Mr. Findlay.	Mr. Sutherland.
Major Anstruther-Gray.	Mr. Tennant.
Mr. Gulland.	Mr. Mitchell-Thomson.
Mr. Leicester Harmsworth.	Sir Andrew Torrance.
Viscount Helmsley.	Captain Waring.
Mr. John Henderson.	Mr. Cathcart Wason.
Sir John Jardine.	Mr. Watt.
Colonel Kenyon-Slaney.	Mr. Weir.
Mr. Lambton.	Mr. M'Kinnon Wood.
Mr. Lamont.	Mr. Younger.

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 1 further considered.

Amendment again proposed, in page 1, line 6, after the word "Acts," to insert the words "with the exception of sections one to six inclusive of the Crofters Holding (Scotland) Act, 1886"—(*Viscount Helmsley*).—Question again proposed, "That those words be there inserted."

Question put, "That those words be there inserted."—The Committee divided :

Ayes, 16.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Lewis M'Iver.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Noes, 36.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. M'Kinnon Wood.

Another Amendment proposed, in page 1, line 6, to leave out from the word "be" to the word "shall" in line 8 (both inclusive)—(*Sir Henry Craik*).—Question proposed, "That the words 'be read and construed as if the expression "landholder" were substituted for the expression "Crofter" occurring therein,' stand part of the Clause."

[Adjourned till Tuesday, 28th May, at 12 o'clock.]

Tuesday, 28th May, 1907.

MEMBERS PRESENT:

MR. EUGENE WASON, in the Chair.

The Lord Advocate.	Mr. M'Callum.
Mr. Ainsworth.	Mr. M'Crae.
Sir Frederick Banbury.	Major M'Micking.
Mr. Bryce.	Mr. James Mason.
Mr. Caldwell.	Mr. Molteno.
Mr. Cleland.	Mr. Murray.
Sir Thomas Glen Coates.	Mr. Morton.
Mr. Cochrane.	Mr. Pirie.
Sir Henry Craik.	Mr. Charles Price.
Mr. Crombie.	Sir Samuel Scott.
Viscount Dalrymple.	Mr. Seddon.
Mr. Arthur Dewar.	Mr. Sinclair.
Mr. John Dewar.	Mr. Abel Smith.
The Master of Elibank.	Mr. Halley Stewart.
Mr. Erskine.	Mr. Solicitor-General for Scotland.
Mr. Munro Ferguson.	Mr. Sutherland.
Mr. Findlay.	Mr. Mitchell-Thomson.
Major Anstruther-Gray.	Sir Andrew Torrance.
Mr. Leicester Harmsworth.	Sir John Batty Tuke.
Sir John Jardine.	Captain Waring.
Colonel Kenyon-Slaney.	Mr. Cathcart Wason.
Mr. Lambton.	Mr. Watt.
Mr. Lamont.	Mr. Weir.
Mr. Hugh Law.	Mr. M'Kinnon Wood.
Mr. Long.	Mr. Younger.
Mr. Murray Macdonald.	

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 1, further considered.

Question again proposed, in page 1, lines 6—8, 'That the words 'be read and construed as if the expression "landholder" were substituted for the expression "crofter" occurring therein,' stand part of the Clause"—(*Sir Henry Craik*).

Question, "That the words proposed to be left out stand part of the Clause,"—put, and agreed to.

Another Amendment proposed, in page 1, lines 8 and 9, to leave out the words "and shall have effect throughout Scotland"—(*Mr. Long*).—Question put, "That

the words 'and shall have effect' stand part of the Clause."—The Committee divided :

Ayes, 31.

The Lord Advocate.
Mr. Ainsworth.
Mr. Bryce.
Mr. Cleland.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.
Mr. Erskine.
Mr. Findlay.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Lamont.
Mr. Hugh Law.
Mr. McCallum.
Mr. McCrae.
Major McMicking.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Charles Price.
Mr. Seddon.
Mr. Sinclair.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Sir Andrew Torrance.
Captain Waring.
Mr. Cathcart Wason.
Mr. Watt.
Mr. Weir.
Mr. McKinnon Wood.

Noes, 15.

Sir Frederick Banbury.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Mr. James Mason.
Mr. Pirie.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Mitchell-Thomson.
Mr. Younger.

Another Amendment proposed, in page 1, line 9, after the word "effect," to insert the words "incrofting parishes"—(*Sir Henry Craik*).—Question proposed, "That those words be there inserted."

Debate arising; Mr. Sinclair rose in his place, and claimed to move "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided :

Ayes, 29.

The Lord Advocate.
Mr. Ainsworth.
Mr. Bryce.
Mr. Cleland.
Sir Thomas Glen Coats.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.
Mr. Erskine.
Mr. Munro Ferguson.
Mr. Findlay.
Mr. Leicester Harmsworth.
Sir John Jardine.

Noes, 11.

Sir Frederick Banbury.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Major Anstruther-Gray.
Colonel Kenyon-Slaney.
Mr. Lambton.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Mitchell-Thomson.
Mr. Younger.

Ayes—continued.

Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. M'Kinnon Wood.

Question put accordingly, "That those words be there inserted."—The Committee divided :

Ayes, 12.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Noes, 28.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Erskine.
 Mr. Finlay.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. M'Kinnon Wood.

[Adjourned till Thursday next at eleven o'clock.]

Thursday, 30th May, 1907.

MEMBERS PRESENT:

Mr. EUGENE WASON in the Chair.

The Lord Advocate.	Mr. Lamont.
Mr. Ainsworth.	Mr. Long.
Sir Frederick Banbury.	Mr. Murray Macdonald.
Mr. Barnes.	Mr. M'Callum.
Mr. Bryce.	Mr. M'Crae.
Mr. Cleland.	Major M'Mickiug.
Sir Thomas Glen Coats.	Mr. James Mason.
Mr. Cochrane.	Mr. Molteno.
Mr. Cameron Corbett.	Mr. Murray.
Sir Henry Craik.	Mr. Morton.
Mr. Crombie.	Mr. Pirie.
Viscount Dalrymple.	Mr. Charles Price.
Mr. Arthur Dewar.	Sir Samuel Scott.
Mr. John Dewar.	Mr. Seddon.
Mr. Robert Duncan.	Mr. Sinclair.
The Master of Elibank.	Mr. Smeaton.
Mr. Erskine.	Mr. Halley Stewart.
Mr. Esslemont.	Mr. Sutherland.
Mr. Munro Ferguson.	Mr. Tennant.
Mr. Findlay.	Mr. Mitchell-Thomson.
Major Anstruther-Gray.	Sir Andrew Torrance.
Mr. Gulland.	Captain Waring.
Mr. Leicester Harmsworth.	Mr. Cathcart Wason.
Mr. John Henderson.	Mr. Weir.
Sir John Jardine.	Lord Willoughby de Eresby.
Colonel Kenyon-Slaney.	Mr. M'Kinnon Wood.
Mr. Lambton.	Mr. Younger.

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 1 further considered.

Amendment proposed, at the end of the Clause, after the word "Scotland," to add the words "wherever it is proved to the satisfaction of the Land Court that the tenants have provided the main part of the permanent improvements existing on the holding"—(*Sir Henry Craik*).—Question proposed, "That those words be there added."

Debate arising; Mr. M'Crae rose in his place, and claimed to move "That the Question be now put," but the Chairman withheld his assent, as it appeared to him that the Committee was prepared to come to a decision without that motion.

Question put, "That those words be there added."—The Committee divided :

Ayes, 15.

Sir Frederick Banbury.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Robert Duncan.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Mr. James Mason.
Mr. Pirie.
Mr. Mitchell-Thomson.
Lord Willoughby de Eresby.
Mr. Younger.

Noes, 32.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Cleland.
Sir Thomas Glen Coats.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Finlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Charles Price.
Mr. Seddon.
Mr. Sinclair.
Mr. Smeaton.
Mr. Hailey Stewart.
Mr. Sutherland.
Sir Andrew Torrance.
Mr. Cathcart Wason.
Mr. Weir.
Mr. M'Kinnon Wood.

Another Amendment proposed, at the end of the Clause, after the word "Scotland," to add the words "except when it is proved that a sufficient proportion of an estate is already occupied by small holdings"—(*Viscount Dalrymple*).—Question put, "That those words be there added."—The Committee divided :

Ayes, 15.

Sir Frederick Banbury.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Robert Duncan.
Major Anstruther Gray.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Smeaton.
Mr. Mitchell-Thomson.
Lord Willoughby de Eresby.
Mr. Younger.

Noes, 34.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Cleland.
Sir Thomas Glen Coates.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Munro Ferguson.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Armsworth.
Sir John Jardine.
Mr. Lamont.
Mr. Murray Macdonald.

Noes—*continued.*

Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno,
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Mr. Seddon
 Mr. Sinclair
 Mr. Halley Stewart
 Mr. Sutherland
 Sir Andrew Torrance.
 Captain Waring
 Mr. Cathcart Wason
 Mr. Weir
 Mr. M'Kinnon Wood.

Another Amendment proposed, to leave out Clause 1—(*Mr. Munro Ferguson*).—
 Question proposed, "That Clause 1 stand part of the Bill."

[Adjourned till Tuesday, 4th June, at eleven o'clock.]

Tuesday, 4th June, 1907.

MEMBERS PRESENT :

Mr. EUGENE WASON in the Chair.

The Lord Advocate.	Mr. Lamont.
Mr. Ainsworth.	Mr. Long.
Sir Frederick Banbury.	Mr. M'Callum.
Mr. Barnes.	Mr. M'Crae.
Sir Arthur Bignold.	Major M'Micking.
Mr. Brace.	Mr. Menzies.
Mr. Bryce.	Mr. Molteno.
Mr. Caldwell.	Mr. Murray.
Mr. Cleland.	Mr. Morton.
Sir Thomas Glen Coats.	Mr. Pirie.
Mr. Cochrane.	Mr. Charles Price.
Sir Henry Craik.	Sir Robert Pullar.
Mr. Crombie.	Dr. Rainy.
Viscount Dalrymple.	Sir Samuel Scott.
Mr. Arthur Dewar.	Mr. Seddon.
Mr. John Dewar.	Mr. Sinclair.
Mr. Robert Duncan.	Mr. Smeaton.
The Master of Elibank.	Mr. Abel Smith.
Mr. Erskine.	Mr. Halley Stewart.
Mr. Esslemont.	Mr. Solicitor-General for Scotland.
Mr. Munro Ferguson.	Mr. Sutherland.
Mr. Findlay.	Mr. Tennant.
Major Anstruther Gray.	Mr. Mitchell-Thomson.
Mr. Gulland.	Sir Andrew Torrance.
Mr. Leicester Harmsworth.	Mr. Vivian.
Viscount Helmsley.	Captain Waring.
Mr. John Henderson.	Mr. Cathcart Wason.
Mr. John Hope.	Mr. Weir.
Sir John Jardine.	Lord Willoughby de Eresby.
Colonel Kenyon-Slaney.	Mr. M'Kinnon Wood.
Mr. Laidlaw.	Mr. Younger.
Mr. Lambton.	

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 1 further considered.

Question again proposed, "That Clause 1 stand part of the Bill."

Debate arising: Mr. Morton rose in his place and claimed to move, "That the Question be now put," but the Chairman withheld his assent, and declined then to put that Question.

Debate resumed: Mr. Sinclair rose in his place, and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided:

Ayes, 38.

Mr. Ainsworth.
Mr. Barnes.
Mr. Bryce.
Mr. Cleland.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Munro Ferguson.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Laidlaw.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Mr. Tennant.
Sir Andrew Torrance.
Captain Waring.
Mr. Cathcart Wason.
Mr. Weir.

Noes, 14.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Mr. Robert Duncan.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Mitchell-Thomson.
Lord Willoughby de Eresby.

Question put accordingly, "That Clause 1 stand part of the Bill."—The Committee divided:

Ayes, 37.

Mr. Ainsworth.
 Mr. Barnes.
 Mr. Bryce.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Mr. Tennant.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.

Noes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Lord Willoughby de Eresby.

Clause 2.

Amendment proposed, in page 1, line 14, to leave out the words "immediately before," in order to insert the words "at the date of"—(*Major Anstruther-Gray*)—instead thereof.—Question, "That the words proposed to be left out stand part of the Clause,"—put, and *negatived*.

Question, "That those words be there inserted,"—put, and *agreed to*.

Another Amendment proposed, in page 1, line 16, after the word "applies," to insert the words "and who has made application in terms of said Act to have a fair rent fixed"—(*Mr. Lambton*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 1, line 18, to leave out subsection (1) (ii)—(*Colonel Kenyon-Slaney*).—Question proposed, "That the words 'As from the' stand part of the Clause."

Debate arising: Mr. Sinclair rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided:

Ayes, 37.

Mr. Ainsworth.
Mr. Brace.
Mr. Bryce.
Mr. Cleland.
Sir Thomas Glen Coats.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Dr. Rainy.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Mr. Tennant.
Sir Andrew Torrance.
Mr. Vivian.
Captain Waring.
Mr. Cathcart Wason.
Mr. Weir.

Noes, 17.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Robert Duncan.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Mitchell-Thomson.
Lord Willoughby de Eresby.
Mr. Younger.

Question put accordingly, "That the words 'As from the' stand part of the Clause."—The Committee divided:

Ayes, 37.

Mr. Ainsworth.
Mr. Brace.
Mr. Bryce.
Mr. Cleland.
Sir Thomas Glen Coats.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Findlay.

Noes, 17.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Robert Duncan.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.

Ayes—continued.

Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Dr. Rainy.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Mr. Tennant.
Sir Andrew Torrance.
Mr. Vivian.
Captain Waring.
Mr. Cathcart Wason.
Mr. Weir.

Noes—continued.

Mr. Long.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Mitchell-Thomson.
Lord Willoughby de Eresby.
Mr. Younger.

Another Amendment proposed, in page 1, line 18, to leave out the words "commencement of this Act," in order to insert the words "date when the holding has been acquired and let by any county council"—(*Mr. Long*)—instead thereof.—Question proposed, "That the words proposed to be left out stand part of the Clause."

[Adjourned till Thursday next at eleven o'clock.]

Thursday, 6th June, 1907.

MEMBERS PRESENT :

Mr. EUGENE WASON in the Chair.

Mr. Ainsworth.	Sir Lewis M'Iver.
Sir Frederick Banbury.	Major M'Micking.
Mr. Beale.	Mr. James Mason.
Sir Arthur Bignold.	Mr. Menzies.
Mr. Bryce.	Mr. Molteno.
Mr. Cleland.	Mr. Murray.
Sir Thomas Glen Coats.	Mr. Morton.
Mr. Cochrane.	Mr. Pirie.
Sir Henry Craik.	Mr. Charles Price.
Mr. Crombie.	Sir Robert Pullar.
Viscount Dalrymple.	Sir Samuel Scott.
Mr. Arthur Dewar.	Mr. Seddon.
Mr. John Dewar.	Mr. Sinclair.
Mr. Robert Duncan.	Mr. Smeaton.
The Master of Elibank.	Mr. Abel Smith.
Mr. Erskine.	Mr. Halley Stewart.
Mr. Esslemont.	Mr. Solicitor-General for Scotland.
Mr. Munro Ferguson.	Mr. Sutherland.
Mr. Findlay.	Mr. Tennant.
Major Anstruther-Gray.	Mr. Mitchell-Thomson.
Mr. Leicester Harmsworth.	Sir Andrew Torrance.
Viscount Helmsley.	Sir John Batty Tuke.
Mr. John Henderson.	Mr. Vivian.
Mr. John Hope.	Captain Waring.
Sir John Jardine.	Mr. Cathcart Wason.
Colonel Kenyon-Slaney.	Mr. Watt.
Mr. Lambton.	Mr. Weir.
Mr. Lamont.	Mr. Dundas White.
Mr. Long.	Lord Willoughby de Eresby.
Mr. Murray Macdonald.	Mr. M'Kinnon Wood.
Mr. M'Callum.	Mr. Younger.
Mr. M'Crae.	

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 2 further considered.

Amendment again proposed, in page 1, line 18, to leave out the words "commencement of this Act," in order to insert the words "date when the holding has been acquired and let by any county council"—(*Mr. Long*)—instead thereof.—Question again proposed, "That the words proposed to be left out stand part of the Clause."

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Question put, "That the words proposed to be left out stand part of the Clause."—
The Committee divided :

Ayes, 38.

Mr. Ainsworth.
Mr. Beale.
Mr. Bryce.
Mr. Cleland.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Findlay.
Mr. Leicester Harmsworth.
Mr. John Hope.
Sir John Jardine.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Murray.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Mr. Seddon.
Mr. Sinclair.
Mr. Smeaton.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Mr. Tennant.
Sir Andrew Torrance.
Mr. Vivian.
Captain Waring.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. M'Kinnon Wood

Noes, 20.

Sir Frederick Banbury.
Sir Arthur Bignold.
Sir Thomas Glen Coats.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Robert Duncan.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Sir Lewis M'Iver.
Mr. James Mason.
Mr. Abel Smith.
Mr. Halley Stewart.
Mr. Mitchell-Thomson.
Sir John Batty Tuke.
Mr. Younger.

Another Amendment proposed, in page 1, line 19, to leave out the words "immediately before," in order to insert the words "at the date of"—(*Major Anstruther-Gray*)—instead thereof.—Question, "That the words proposed to be left out stand part of the Clause,"—put, and *negatived*.

Question, "That those words be there inserted,"—put, and *agreed to*.

Another Amendment proposed, in page 1, line 20, after the word "tenant," to insert the words "or by joint tenants"—(*Mr. Cochrane*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Motion made and Question put, "That the Committee do sit until 4 o'clock this afternoon"—(*Mr. Sinclair*).—The Committee divided :

Ayes, 34.

Mr. Ainsworth.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Leicester Harmsworth.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Noes, 17.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Lewis M'Iver.
 Mr. James Mason.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Lord Willoughby de Eresby.
 Mr. Younger.

Motion made and Question proposed, "That the Committee at its rising this day do adjourn till 12 o'clock on Tuesday next"—(*Mr. Long*).

Debate arising: Mr. Sinclair rose in his place and claimed to move "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided:

Ayes, 35.

Mr. Ainsworth.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.

Noes, 17.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Lewis M'Iver.
 Mr. James Mason.
 Mr. Abel Smith.

Ayes—continued.

Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Noes—continued.

Mr. Mitchell-Thomson.
 Lord Willoughby de Eresby.
 Mr. Younger.

Question put accordingly, "That the Committee at its rising this day do adjourn till 12 o'clock on Tuesday next."—The Committee divided :

Ayes, 17.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Lewis M'Iver.
 Mr. James Mason.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Lord Willoughby de Eresby.
 Mr. Younger.

Noes, 35.

Mr. Ainsworth.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Watt.

Noes—*continued*.

Mr. Weir.
Mr. Dundas White.
Mr. M'Kinnon Wood.

Consideration of Clause resumed.

Another Amendment proposed, in page 1, line 20, to leave out the words "who resides," in order to insert the words "whose only residence is"—(*Mr. Younger*)—instead thereof.

Question proposed, "That the words proposed to be left out stand part of the Clause."

Debate arising: Mr. McCrae rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided:

Ayes, 38.

Mr. Ainsworth.
Mr. Beale.
Mr. Bryce.
Mr. Cleland.
Sir Thomas Glen Coats.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Munro Ferguson.
Mr. Findlay.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Mr. John Hope.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Mr. Seddon.
Mr. Sinclair.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Mr. Tennant.
Sir Andrew Torrance.
Captain Waring.
Mr. Cathcart Wason.
Mr. Dundas White.
Mr. M'Kinnon Wood.

Noes, 15.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Sir Lewis M'Iver.
Mr. James Mason.
Mr. Abel Smith.
Mr. Mitchell-Thomson.
Lord Willoughby de Eresby.
Mr. Younger.

Question put accordingly, "That the words proposed to be left out stand part of the Clause."—The Committee divided :

Ayes, 40.

Mr. Ainsworth.
 Mr. Beale.
 Sir Arthur Bignold.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Mr. Tennant.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Noes, 14.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Lewis M'Iver.
 Mr. James Mason.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 • Lord Willoughby de Eresby
 Mr. Younger.

Another Amendment proposed, in page 1, line 21, after the word "on," to insert the words "or near"—(*Mr. Lamont*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

[Adjourned till Tuesday next at eleven o'clock.]

Tuesday, 11th June, 1907.

MEMBERS PRESENT :

Mr. EUGENE WASON, in the Chair.

The Lord Advocate.	Mr. Long.
Mr. Ainsworth.	Mr. Murray Macdonald.
Sir Frederick Banbury.	Mr. M'Callum.
Mr. Barnes.	Mr. M'Crae.
Mr. Beale.	Sir Lewis M'Iver.
Sir Arthur Bignold.	Major M'Micking.
Mr. Brace.	Mr. James Mason.
Mr. Bryce.	Mr. Menzies.
Mr. Caldwell.	Mr. Molteno.
Mr. Cleland.	Mr. Murray.
Sir Thomas Glen Coats.	Mr. Morton.
Mr. Cochrane.	Mr. Pirie.
Sir Henry Craik.	Mr. Charles Price.
Mr. Crombie.	Sir Samuel Scott.
Viscount Dalrymple.	Mr. Sinclair.
Mr. Arthur Dewar.	Mr. Smeaton.
Mr. John Dewar.	Mr. Abel Smith.
Mr. Robert Duncan.	Mr. Halley Stewart.
The Master of Elibank.	Mr. Sutherland.
Mr. Erskine.	Mr. Tennant.
Mr. Esslemont.	Mr. Mitchell-Thomson.
Mr. Munro Ferguson.	Sir Andrew Torrance.
Mr. Findlay.	Sir John Batty Tuke.
Major Anstruther-Gray.	Mr. Vivian.
Mr. Gulland.	Captain Waring.
Mr. Leicester Harmsworth.	Mr. Cathcart Wason.
Viscount Helmsley.	Mr. Watt.
Mr. John Hope.	Mr. Weir.
Sir John Jardine.	Mr. Dundas White.
Colonel Kenyon-Slaney.	Mr. Williamson.
Mr. Lambton.	Lord Willoughby de Eresby.
Mr. Lamont.	Mr. M'Kinnon Wood.
Mr. Hugh Law.	Mr. Younger.

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 2 further considered.

Amendment proposed, in page 1, line 21, after the word "on," to insert the words "and cultivates"—(*Mr. Sinclair*).—Question proposed, "That those words be there inserted."

Debate arising : Mr. Sinclair rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided :

Ayes, 35.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Brace.
Mr. Bryce.
Mr. Cleland.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Lamont.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Charles Price.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Sutherland.
Mr. Tennant.
Sir Andrew Torrance.
Mr. Vivian.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. M'Kinnon Wood.

Noes, 13.

Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Sir Lewis M'Iver.
Mr. James Mason.
Sir Samuel Scott.
Mr. Mitchell-Thomson.
Mr. Younger.

Question put accordingly, "That those words be there inserted."—The Committee divided :

Ayes, 36.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Brace.
Mr. Bryce.
Mr. Cleland.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Munro Ferguson.
Mr. Findlay.

Noes, 13.

Sir. Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Mr. Robert Duncan.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Sir Lewis MacIver.
Mr. Jamas Mason.
Sir Samuel Scott.
Mr. Mitchell-Thomson.
Mr. Younger.

Ayes—continued.

Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Charles Price.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Mr. Tennant.
 Sir Andrew Torrance.
 Mr. Vivian.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Another Amendment proposed, in page 1, line 21, to leave out the words, "and cultivates it"—(*Lord Helmsley*).—Question, "That the words proposed to be left out stand part of the Clause,"—put, and *negatived*.

Another Amendment proposed, in page 1, lines 21 and 22, to leave out the words "by himself or his family," in order to insert the words "with or without hired labour"—(*Mr. Sinclair*)—instead thereof.—Question proposed, "That the words proposed to be left out stand part of the Clause."

Debate arising : Mr. McCrae rose in his place and claimed to move "That the Question be now put."—Question put, "That the Question be now put."—The Committee divided :

Ayes, 35.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Mr. Brace.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Erskine,
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Lamont.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.

Noes, 14.

Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Sir Lewis M'Iver.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Mitchell-Thomson.
 Sir John Batty Tuke.
 Mr. Younger.

Ayes—*continued*.

Mr. Molteno.
 Mr. Murray.
 Mr. Charles Price.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Mr. Tennant.
 Sir Andrew Torrance.
 Mr. Vivian.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Noes—*continued*.

Question put accordingly, "That the words proposed to be left out stand part of the Clause."—The Committee divided :

Ayes, 14.

Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Robert Duncan.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Sir Lewis M'Iver.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Mitchell-Thomson.
 Sir John Batty Tuke.
 Mr. Younger.

Noes, 37.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Mr. Brace.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Lamont.
 Mr. M'Crae.
 Major M'Mickling.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Mr. Charles Price.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Mr. Tennant.
 Sir Andrew Torrance.
 Mr. Vivian.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Question, "That those words be there inserted,"—put, and *agreed to*.

Another Amendment proposed, at the end of the last inserted Amendment, after the word "labour," to insert the words "and who applies for registration in respect of such holding, and is so registered under the provisions of this Act"—(*Colonel Kenyon-Slaney*).—Question proposed, "That those words be there inserted."

Debate arising: Mr. Sinclair rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided:

Ayes, 36.

The Lord Advocate.
Mr. Ainsworth.
Mr. Beale.
Mr. Bryce.
Sir Thomas Glen Coates.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Munro Ferguson.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Charles Price.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Sutherland.
Mr. Vivian.
Captain Waring.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. M'Kinnon Wood.

Noes, 13.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Mr. Robert Duncan.
Major Anstruther-Gray.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. James Mason.
Sir Samuel Scott.
Mr. Mitchell-Thomson.
Sir John Batty Tuke.
Mr. Younger.

Question put accordingly, "That those words be there inserted." The Committee divided:

Ayes, 15.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.

Noes, 31.

The Lord Advocate.
Mr. Ainsworth.
Mr. Bryce.
Sir Thomas Glen Coates.
Mr. Crombie.

Ayes—continued.

Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Mitchell-Thomson.
 Sir John Batty Tuke.
 Mr. Younger.

Noes—continued.

Mr. Arthur Dewar.
 Mr. John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Charles Price.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Mr. Vivian.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Motion made, and Question put, "That the Committee do sit until 4 o'clock this afternoon"—(*Mr. Sinclair*).—The Committee divided :

Ayes, 25.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Mr. Bryce.
 Mr. Crombie.
 Mr. John Dewar.
 Mr. Erskine.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Gulland.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Crae.
 Mr. Molteno.
 Mr. Morton.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.

Noes, 8.

Sir Frederick Banbury.
 Sir Henry Craik.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thompson.
 Mr. Younger.

Consideration of Clause resumed.

Amendment proposed, in page 1, line 23, after the word "tenant," to add the words :

"Provided that nothing in this Act shall prevent such tenant, before or after the fixing of a fair rent, from agreeing with his landlord to a new bargain and binding himself not to apply to the Land Court to alter the terms of such bargain for a period not exceeding nineteen years "

—(*Sir Frederick Banbury*).—Question put, "That those words be there added."—The Committee divided :

Ayes, 14.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Robert Duncan.
Major Anstruther-Gray.
Colonel Kenyon-Slaney.
Sir Lewis M'Iver.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Mitchell-Thomson.
Mr. Younger.

Noes, 33.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Beale.
Mr. Bryce.
Mr. Cleland.
Sir Thomas Glen Coats.
Mr. Crombie.
Mr. John Dewar.
Mr. Erskine.
Mr. Munro Ferguson.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Hope.
Sir John Jardine.
Mr. Lembton.
Mr. Lamont.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Sinclair.
Mr. Halley Stewart.
Mr. Sutherland.
Mr. Tennant.
Sir Andrew Torrance.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.

Another Amendment proposed, in page 2, line 1, to leave out subsection (1) (iii) —(*Mr. Abel Smith*).—Question put, "That the word 'As' stand part of the Clause."—The Committee divided :

Ayes, 34.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Beale.
Sir Arthur Bignold.
Mr. Bryce.
Mr. Cleland.
Mr. Crombie.

Noes, 15.

Sir Frederick Banbury.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Robert Duncan.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Colonel Kenyon-Slaney.

Ayes—continued.

Mr. Arthur Dewar.
Mr. John Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Hope.
Mr. Lamont.
Mr. M'Crae.
Major M'Micking.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Pirrie.
Mr. Charles Price.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Sutherland.
Sir Andrew Torrance.
Mr. Cathcart Wason.
Mr. Watt.
Mr. Weir.
Mr. Dundas White.
Mr. Williamson.

Noes—continued.

Mr. Lambton.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Mitchell-Thomson.
Lord Willoughby de Ereshy.

[Adjourned till Thursday next at eleven o'clock.]

Thursday, 13th June, 1907.

MEMBERS PRESENT :

Mr. EUGENE WASON in the Chair.

The Lord Advocate.	Mr. Murray Macdonald.
Mr. Ainsworth.	Mr. M'Callum.
Sir Frederick Banbury.	Mr. M'Crae.
Mr. Barnes.	Sir Lewis M'Iver.
Mr. Beale.	Major M'Micking.
Mr. Bryce.	Mr. James Mason.
Mr. Cleland.	Mr. Menzies.
Sir Thomas Glen Coats.	Mr. Molteno.
Mr. Cochrane.	Mr. Murray.
Mr. Cameron Corbett.	Mr. Morton.
Sir Henry Craik.	Mr. Pirie.
Viscount Dalrymple.	Mr. Charles Price.
Mr. Arthur Dewar.	Sir Samuel Scott.
Mr. John Dewar.	Mr. Sinclair.
Mr. Robert Duncan.	Mr. Smeaton.
Mr. Erskine.	Mr. Abel Smith.
Mr. Esslemont.	Mr. Halley Stewart.
Mr. Munro Ferguson.	Mr. Soliciter-General for Scotland.
Mr. Findlay.	Mr. Sutherland.
Major Anstruther-Gray.	Mr. Tennant.
Mr. Gulland.	Mr. Mitchell-Thomson.
Mr. Leicester Harmsworth.	Sir Andrew Torrance.
Mr. John Henderson.	Sir John Batty Tuke.
Mr. John Hope.	Captain Waring.
Sir John Jardine.	Mr. Cathcart Wason.
Colonel Kenyon-Slaney.	Mr. Watt.
Mr. Laidlaw.	Mr. Weir.
Mr. Lambton.	Lord Willoughby de Fresby.
Mr. Lamont.	Mr. M Kinnon Wood.
Mr. Long.	Mr. Younger.

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 2 further considered.

Another Amendment proposed, in page 2, line 1, to leave out the words "termination of the lease," in order to insert the words "commencement of this Act"—(*Mr. Weir*)—instead thereof.—Question put, "That the words proposed to be left out stand part of the Clause."—The Committee divided :

Ayes, 32.

The Lord Advocate.
 Sir Frederick Banbury.
 Mr. Beale.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Mr. Erskine.
 Major Anstruther-Gray.
 Sir John Jardine.
 Colonel Kenyon-Slaney.
 Mr. Laidlaw.
 Mr. Lambton.
 Mr. Long.
 Sir Lewis M'Iver.
 Major M'Micking.
 Mr. James Mason.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Sir Samuel Scott.
 Mr. Sinclair.
 Mr. Abel Smith.
 Mr. Solicitor-General for Scotland.
 Mr. Tennant.
 Mr. Mitchell-Thomson.
 Sir Andrew Torrance.
 Sir John Batty Tuke.
 Lord Willoughby de Eresby.
 Mr. Younger.

Noes, 25.

Mr. Ainsworth.
 Mr. Barnes.
 Mr. Bryce.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. M'Kinnon Wood.

Motion made, and Question put, "That the Committee do sit till 4 o'clock this afternoon"—(*Mr. Sinclair*).—The Committee divided:

Ayes, 40.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.

Noes, 18.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Major Anstruther-Gray.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Lewis M'Iver.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Tennant.
 Mr. Mitchell-Thomson.
 Sir John Batty Tuke.
 Lord Willoughby de Eresby.
 Mr. Younger.

Ayes—continued.

Major M'icking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. M'Kinnon Wood.

Consideration of Clause resumed.

Another Amendment proposed, in page 2, line 1, to leave out the word "every," in order to insert the words "of a holding unless the landlord shall have six months before such date intimated to the Agricultural Commissioners his intention to resume occupation of such holding by himself, any."—(*Colonel Kenyon-Slaney*)—instead thereof—Question proposed, "That the word 'every,' stand part of the Clause."

Debate arising: Mr. M'Crae rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided:

Ayes, 34.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Mr. Bryce.
 Sir Thomas Glen Coats.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.

Noes, 13.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Lewis M'Iver.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Lord Willoughby de Eresby.
 Mr. Younger.

Ayes—*continued*.

Mr. Charles Price.
 Mr. Sinclair.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Mr. Tennant.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Watt.

Question put accordingly, "That the word 'every' stand part of the Clause."—
 The Committee divided:

Ayes, 36.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Mr. Sinclair.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Mr. Tennant.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. M'Kinnon Wood.

Noes, 13.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Lewis M'Iver.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Lord Willoughby de Eresby.
 Mr. Younger.

Another Amendment proposed, in page 2, line 2, to leave out the words "immediately before," in order to insert the words "at the date of"—(*Mr. Sinclair*)—instead thereof.—Question, "That the words proposed to be left out stand part of the Clause,"—put, and *negatived*.

Question, "That those words be there inserted,"—put, and *agreed to*.

Another Amendment proposed, in page 2, lines 3 and 4, to leave out the words "for a term longer than one year"—(*Mr. Weir*).—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 2, line 4, after the word "on," to insert the words "and cultivates"—(*Mr. Sinclair*).—Question, "That those words be there inserted,"—put, and *agreed to*.

Another Amendment proposed, in page 2, line 6, to leave out the words "successor as the case may be," in order to insert the words "other person succeeding under the provisions of such lease"—(*Mr. Cochrane*)—instead thereof.—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 2, line 9, after the word "and," to insert the words "notwithstanding anything aforesaid it is hereby declared that any leaseholder who by himself or his family has provided the buildings or equipment on his holding shall be a qualified leaseholder as from the commencement of this Act"—(*Mr. Weir*).—Question proposed, "That those words be there inserted."

Debate arising: Mr. Sinclair rose in his place and claimed to move, "That the Question be now put." Question put, "That the Question be now put."—The Committee divided:

Ayes, 38.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Beale.
Mr. Bryce.
Mr. Cleland.
Sir Thomas Glen Coats.
Mr. Arthur Dewar.
Mr. John Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Mr. John Hope.
Sir John Jardine.
Mr. Laidlaw.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Mr. Menzies.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Pirie.
Mr. Charles Price.
Mr. Sinclair.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.

Noes, 14.

Sir Frederick Banbury.
Mr. Cochrane.
Sir Henry Craik.
Mr. Robert Duncan.
Mr. Munro Ferguson.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Sir Lewis M'Iver.
Mr. James Mason.
Sir Samuel Scott.
Mr. Mitchell-Thomson.
Lord Willoughby de Eresby.
Mr. Younger.

Ayes—continued.

Mr. Tennant.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. M'Kinnon Wood.

Question put accordingly, "That those words be there inserted."—The Committee divided.

Ayes, 25.

Mr. Barnes.
 Mr. Bryce.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Mr. Lambton.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Crae.
 Sir Lewis M'Iver.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Samuel Scott.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Lord Willoughby de Eresby.
 Mr. M'Kinnon Wood.
 Mr. Younger.

Noes, 22.

The Lord Advocate.
 Mr. Ainsworth.
 Sir Frederick Banbury.
 Mr. Beale.
 Mr. Cleland.
 Sir Thomas Glen Coates.
 Mr. Cochrane.
 Mr. Cameron Corbett.
 Mr. John Dewar.
 Mr. Erskine.
 Mr. John Henderson.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. M'Callum.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Solicitor-General for Scotland.
 Mr. Tennant.
 Sir Andrew Torrance.

[Adjourned till Tuesday, 18th June, at eleven o'clock.]

Tuesday, 18th June, 1907.

MEMBERS PRESENT :

Mr. EUGENE WASON in the Chair.

The Lord Advocate.	Mr. Murray Macdonald.
Mr. Ainsworth.	Mr. M'Callum.
Sir Frederick Banbury.	Mr. M'Crae.
Mr. Barnes.	Major M'Micking.
Mr. Beale.	Mr. James Mason.
Sir Arthur Bignold.	Mr. Menzies.
Mr. Brace.	Mr. Molteno.
Mr. Bryce.	Mr. Murray.
Mr. Caldwell.	Mr. Morton.
Mr. Cleland.	Mr. Pirie.
Sir Thomas Glen Coats.	Mr. Charles Price.
Mr. Cochrane.	Sir Robert Pullar.
Sir Henry Craik.	Mr. Rainy.
Mr. Crombie.	Sir Samuel Scott.
Viscount Dalrymple.	Mr. Sinclair.
Mr. Arthur Dewar.	Mr. Smeaton.
Mr. John Dewar.	Mr. Abel Smith.
The Master of Elibank.	Mr. Halley Stewart.
Mr. Erskine.	Mr. Solicitor-General for Scotland.
Mr. Esslemont.	Mr. Tennant.
Mr. Munro Ferguson.	Mr. Mitchell-Thomson.
Mr. Findlay.	Sir Andrew Torrance.
Major Anstruther-Gray.	Sir John Batty Tuke.
Mr. Gulland.	Captain Waring.
Mr. Leicester Harmsworth.	Mr. Cathcart Wason.
Viscount Helmsley.	Mr. Watt.
Mr. John Hope.	Mr. Weir.
Sir John Jardine.	Mr. Dundas White.
Colonel Kenyon-Slaney.	Mr. Wilkie.
Mr. Laidlaw.	Lord Willoughby de Eresby.
Mr. Lambton.	Mr. M'Kinnon Wood.
Mr. Lamont.	Mr. Younger.
Mr. Long.	

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 2, further considered.

Amendment proposed, in page 2, at the end of the last inserted Amendment, after the word "Act," to insert the words:

"Provided that he resides on and cultivates the holding with or without hired labour"

—(*Mr. Younger*).—Question, "That those words be there inserted,"—put, and agreed to.

Motion made and Question proposed, "That the Committee do now adjourn"—(*Mr. Long*).

Debate arising: *Mr. Sinclair* rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided:

Ayes, 34.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Lamont.
 Mr. McCallum.
 Mr. McCrae.
 Major McMicking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Sineaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Captain Waring.
 Mr. Cathcart Wason.

Noes, 14.

Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Major Anstruther-Gray.
 Colonel Kenyon-Slaney.
 Mr. Lamb'ron.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Sir John Batty Tuke.
 Lord Willoughby de Eresby.
 Mr. Younger.

Ayes—continued.

Mr. Watt.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Question put accordingly, "That the Committee do now adjourn."—The Committee divided :

Ayes, 13.

Sir Arthur Bignold.
 Mr. Cochrane.
 Major Anstruther-Gray.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Sir John Batty Tuke.
 Lord Willoughby de Eresby.
 Mr. Younger.

Noes, 37.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esselmont.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Tennant.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Motion again made, "That the Committee do now adjourn"—(*Mr. Cochrane*)—but the Chairman declined to put the Question.

Consideration of Clause resumed.

Another Amendment proposed, in page 2, to leave out Subsections (i) (iv)—(*Colonel Kenyon-Slaney*).—Question proposed, "That the words 'As from the date' stand part of the Clause."

Debate arising : Mr. Sinclair rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided :

Ayes, 39.

The Lord Advocate.
Mr. Ainsworth.
Mr. Beale.
Mr. Brace.
Mr. Bryce.
Mr. Cleland.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Hope.
Sir John Jardine.
Mr. Lamont.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Tennant.
Sir Andrew Torrance.
Captain Waring.
Mr. Cathcart Wason.
Mr. Watt.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.

Noes, 15.

Sir Arthur Bignold.
Mr. Cochrane.
Viscount Dalrymple.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Mitchell-Thomson.
Lord Willoughby de Eresby.
Mr. Younger.

Question put accordingly, "That the words 'As from the date' stand part of the Clause."—The Committee divided :

Ayes, 39.

The Lord Advocate.
Mr. Ainsworth.
Mr. Beale.
Mr. Brace.
Mr. Bryce.
Mr. Cleland.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.

Noes, 16.

Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.

Ayes—*continued*.

The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Puller.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Tennant.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Noes—*continued*.

Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Lord Willoughby de Eresby.
 Mr. Younger.

Motion made, "That the Question 'That Clause 2, as amended, stand part of the Bill' be now put"—(*Mr. Sinclair*).—Question put, "That the Question 'That Clause 2, as amended, stand part of the Bill' be now put."—The Committee divided :

Ayes, 34.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Brace.
 Mr. Bryce.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.

Noes, 17.

Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Mr. Pirie.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Lord Willoughby de Eresby.
 Mr. Younger.

Ayes—continued.

Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Tennant.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Dundas White.
 Mr. Wilkie.

Question put accordingly, "That Clause 2, as amended, stand part of the Bill."—
 The Committee divided :

Ayes, 37.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Beale.
 Mr. Brace.
 Mr. Bryce.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Dundas White.
 Mr. Wilkie.

Noes, 16.

Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Lord Willoughby de Eresby.
 Mr. Younger.

Clause 3.

Motion made and Question proposed, "That Clause 3 be postponed"—(*Mr. Cochrane*).

Debate arising: *Mr. Findlay* rose in his place and claimed to move, "That the Question be now put," but the Chairman withheld his assent, and declined then to put that Question.

Debate resumed: *Mr. Sinclair* rose in his place and claimed to move, "That the Question be now put."—Question put, "That the Question be now put."—The Committee divided:

Ayes, 42.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Beale.
 Mr. Brace.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Tennant.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Noes, 15.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Lord Willoughby de Eresby.
 Mr. Younger.

Question put accordingly, "That Clause 3 be postponed."—The Committee divided:

Ayes, 14.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Lord Willoughby de Eresby.
 Mr. Younger.

Noes, 42.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Beale.
 Mr. Brace.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Tennant.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Mr. Sinclair rose in his place and claimed to move, "That the Question 'That all the words of Clause 3 down to and including the word "exceeding," in page 3, line 18, stand part of the Clause,' be now put"—Question put, "That the Question 'That all the words of Clause 3 down to and including the word "exceeding," in page 3, line 18, stand part of the Clause,' be now put."—The Committee divided:

Ayes, 31.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Brace.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Erskine.
 Mr. Findlay.

Noes, 17.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.

Ayes—continued.

Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Pirie.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Noes—continued.

Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Mr. Watt.
 Lord Willoughby de Eresby.
 Mr. Younger.

Question put accordingly, "That all the words of Clause 3 down to and including the word 'exceeding,' in page 3, line 18, stand part of the Clause."—The Committee divided :

Ayes, 37.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Mr. Brace.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.

Noes, 16.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Lord Willoughby de Eresby.
 Mr. Younger.

Ayes—continued.

Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Motion made and Question put, "That the Committee do sit till 4 o'clock this afternoon" - (*Mr. Sinclair*).—The Committee divided :

Ayes, 39.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Mr. Braae.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Erskine.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Noes, 16.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Tennant.
 Mr. Mitchell-Thomson.
 Lord Willoughby de Eresby.
 Mr. Younger.

Consideration of Clause resumed.

Amendment proposed, in page 3, line 18, to leave out the words "one thousand," in order to insert the words "twelve hundred"—(*Mr. Sinclair*)—instead thereof.—Question proposed, "That the words 'one thousand' stand part of the Clause."

Debate arising : Mr. Sinclair rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided :

Ayes, 32.

Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Pirie.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Noes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Mr. Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Lord Willoughby de Eresby.
 Mr. Younger.

Question put accordingly, "That the words 'one thousand' stand part of the Clause."—The Committee divided :

Ayes, 16.

Sir Frederick Banbury.
 Mr. Barnes.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Mr. Wilkie.
 Lord Willoughby de Eresby.
 Mr. Younger.

Noes, 35.

Mr. Ainsworth.
 Mr. Beale.
 Sir Arthur Bignold.
 Mr. Bryce.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.

Noes—*continued*.

Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.

Question put, "That the words 'twelve hundred' be there inserted."—The Committee divided :

Ayes, 36.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Sir Arthur Bignold.
 Mr. Bryce.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Charles Price.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.

Noes, 15.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Mr. Wilkie.
 Lord Willoughby de Eresby.
 Mr. Younger.

Mr. Sinclair rose in his place and claimed to move, "That the Question 'That Clause 3, as amended, stand part of the Bill' be now put."

Question put, "That the Question 'That Clause 3, as amended, stand part of the Bill,' be now put."—The Committee divided :

Ayes, 37.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Beale.
Mr. Bryce.
Mr. Cleland.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Hope.
Sir. John Jardine.
Mr. Laidlaw.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Molteno.
Mr. Murray.
Mr. Charles Price.
Sir Robert Pullar.
Dr. Rainy.
Mr. Sinclair.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Sir Andrew Torrance.
Captain Waring.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.

Noes, 15.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Mr. Munro Ferguson.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Mitchel-Thomson.
Lord Willoughby de Eresby.
Mr. Younger.

Question put accordingly, "That Clause 3, as amended, stand part of the Bill."—
The Committee divided :

Ayes, 37.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Beale.
Mr. Bryce.
Mr. Cleland.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.
The Master of Elibank.
Mr. Erskine.

Noes, 15.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Mr. Munro Ferguson.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.

Ayes—*continued*.

Mr. Esslemont.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Hope.
Sir John Jardine.
Mr. Laidlaw.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Molteno.
Mr. Murray.
Mr. Charles Price.
Sir Robert Pullar.
Dr. Rainy.
Mr. Sinclair.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Sir Andrew Torrance.
Captain Waring.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.

Noes—*continued*.

Mr. Abel Smith.
Mr. Mitchell-Thomson.
Lord Willoughby de Eresby.
Mr. Younger.

[Adjourned till Thursday next at eleven o'clock.]

Thursday, 20th June, 1907.

MEMBERS PRESENT :

Mr. EUGENE WASON in the Chair.

The Lord Advocate.
Mr. Ainsworth.
Sir Frederick Banbury.
Mr. Beale.
Sir Arthur Bignold.
Mr. Brace.
Mr. Bryce.
Mr. Caldwell.
Mr. Cleland.
Mr. Cochrane.
Sir Henry Craik.
Mr. Crombie.
Viscount Dalrymple.
Mr. Arthur Dewar.
Mr. John Dewar.
Mr. Robert Duncan.
The Master of Elibank.
Mr. Erskine.
Mr. Munro Ferguson.
Mr. Findlay.
Major Anstruther-Gray.
Mr. Gulland.
Mr. Leicester Harmsworth.
Viscount Helmsley.
Mr. John Henderson.
Mr. John Hope.
Sir John Jardine.
Colonel Kenyon-Slaney.
Mr. Laidlaw.
Mr. Lamont.

Mr. Long.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. James Mason.
Mr. Menzies.
Mr. Murray.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Mr. Seddon.
Mr. Sinclair.
Mr. Smeaton.
Mr. Abel Smith.
Mr. Halley Stewart.
Mr. Starkey.
Mr. Sutherland.
Mr. Tennant.
Mr. Mitchell-Thomson.
Sir Andrew Torrance.
Mr. Vivian.
Captain Waring.
Mr. Cathcart Wason.
Mr. Watt.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.
Mr. Williamson.
Mr. M'Kinnon Wood.

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 4.

Amendment proposed, in page 3, line 36, to leave out the words "Secretary for Scotland," in order to insert the words "President of the Board of Agriculture"—(*Mr. Munro Ferguson*)—instead thereof.—Question proposed, "That the words proposed to be left out stand part of the Clause."

Debate arising: *Mr. Sinclair* rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided:

Ayes, 35.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Beale.
 Mr. Bryce.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Sutherland.
 Mr. Tennant.
 Sir Andrew Torrance.
 Mr. Vivian.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Noes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.

Question put accordingly, "That the words proposed to be left out stand part of the Clause."—The Committee divided :

Ayes, 35.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Beale.
 Mr. Bryce.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Mr. Tennant.
 Sir Andrew Torrance.
 Mr. Vivian.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Noes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.

Mr. Sinclair rose in his place and claimed to move, "That the Question 'That all the words of Clause 4, down to and including the word "agriculture," in page 4, line 2, stand part of the Clause,' be now put."

Question put, "That the Question 'That all the words of Clause 4, down to and including the word "agriculture," in page 4, line 2, stand part of the Clause,' be now put.—The Committee divided :

Ayes, 35.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Beale.
 Mr. Bryce.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Lamont.

Noes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Mr. Abel Smith.

Ayes—continued.

Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Mr. Tennant.
 Sir Andrew Torrance.
 Mr. Vivian.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Noes—continued.

Mr. Starkey.
 Mr. Mitchell-Thomson.

Question put accordingly, "That all the words of Clause 4, down to and including the word 'agriculture,' in page 4, line 2, stand part of the Clause."—The Committee divided :

Ayes, 35.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Beale.
 Mr. Bryce.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Mr. Tennant.
 Sir Andrew Torrance.
 Mr. Vivian.
 Captain Waring.

Noes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.

Ayes—continued.

Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Another Amendment proposed, in page 4, line 2, after the word "agriculture," to insert the words "including the hiring of land to obtain land for homes for fishermen, cottars, agricultural labourers, and others, the regulation of scathold and common grazings, the rearrangement and settlement of runrig lands, the collection of seaware and tangle, and the making of kelp"—(*Mr. Cathcart Wason*).

Question put, "That those words be there inserted."—The Committee divided :

Ayes, 7.

Sir Arthur Bignold.
 Colonel Kenyon-Slaney.
 Mr. Abel Smith.
 Mr. Sutherland.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.

Noes, 39.

The Lord Advocate.
 Mr. Ainsworth.
 Sir Frederick Banbury.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Crombie.
 Viscount Dalrymple.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Robert Duncan.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Major Anstruther-Gray.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Viscount Helmsley.
 Mr. John Henderson.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Long.
 Mr. M'Callum.
 Mr. M'Crae.
 Mr. James Mason.
 Mr. Menzies.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Dundas White.

Motion made and Question put, "That the Committee do sit till 3.45 o'clock this afternoon"—(*Mr. Sinclair*).—The Committee divided :

Ayes, 33.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Beale.
 Sir Arthur Bignold.
 Mr. Bryce.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Sir John Jardine.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Mr. Menzies.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.

Noes, 13.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.

Consideration of Clause resumed.

Amendment proposed, in page 4, line 8, after the word "shall," to insert the words "submit such estimates and keep such accounts of their receipts and expenditure, and their accounts shall be audited in accordance with such regulations as the Treasury may direct and shall"—(*Sir Henry Craik*).—Question, "That those words be there inserted,"—put, and *agreed to*.

Amendment proposed, in page 4, to leave out Subsection (3).—Question proposed, "That Subsection (3) stand part of the Clause."

Debate arising: Mr. Sinclair rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided:

Ayes, 33.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Brace.
 Mr. Bryce.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.

Noes, 12.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Robert Duncan.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.

Ayes—continued.

Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Noes—continued.

Mr. Long.
 Mr. James Mason.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.

Question put accordingly, "That Subsection (3) stand part of the Clause."—The Committee divided :

Ayes, 34.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Brace.
 Mr. Bryce.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Sutherland.

Noes, 13.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.

Ayes—continued.

Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Another Amendment proposed, in page 4, line 16, after the word! “advisable,” to insert the words :

“(4) The Agricultural Commissioners shall take such steps as they think proper for the promotion and development of agricultural organisation and co-operation ”

—(*Mr. Sinclair*).—Question proposed, “That those words be there inserted ”

Debate arising : Mr. Sinclair rose in his place and claimed to move, “That the Question be now put.”—The Committee divided :

Ayes, 36.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Beale.
 Mr. Brace.
 Mr. Bryce.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Murray.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. Williamson.

Noes, 14.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.

Question, “That those words be there inserted,”—put accordingly, and *agreed to*.

Another Amendment proposed, at the end of the last inserted Amendment, after the word "co-operation," to insert the words "including credit banks, transport by land and water, and agricultural instruction"—(*Mr. Abel Smith*).—Question proposed, "That those words be there inserted."

Debate arising: *Mr. Sinclair* rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided:

Ayes, 37.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Beale.
 Mr. Brace.
 Mr. Bryce.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Murray.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. Williamson.

Noes, 14.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.

Question put accordingly, "That those words be there inserted."—The Committee divided:

Ayes, 13.

Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Viscount Helmsley.

Noes, 38.

The Lord Advocate.
 Mr. Ainsworth.
 Sir Frederick Banbury.
 Mr. Beale.
 Sir Arthur Bignold.
 Mr. Brace.

Ayes—continued.

Colonel Kenyon-Slaney.
Mr. Long.
Mr. James Mason.
Mr. Smeaton.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.

Noes—continued.

Mr. Bryce.
Mr. Cleland.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Mr. John Hope.
Sir John Jardine.
Mr. Laidlaw.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Murray.
Sir Robert Pullar.
Mr. Sinclair.
Mr. Halley Stewart.
Mr. Sutherland.
Sir Andrew Torrance.
Captain Waring.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.
Mr. Williamson.

[Adjourned till Tuesday next at eleven o'clock.]

Tuesday, 25th June, 1907.

MEMBERS PRESENT

Mr. EUGENE WASON in the Chair.

The Lord Advocate.	Mr. Murray Macdonald.
Mr. Ainsworth.	Mr. M'Callum.
Sir Frederick Banbury.	Mr. M'Crae.
Mr. Barnes.	Major M'Micking.
Mr. Beale.	Mr. James Mason.
Sir Arthur Bignold.	Mr. Molteno.
Mr. Buchanan.	Mr. Murray.
Mr. Cleland.	Mr. Morton.
Mr. Cochrane.	Mr. Pirie.
Sir Henry Craik.	Mr. Charles Price.
Mr. Crombie.	Dr. Rainy.
Viscount Dalrymple.	Sir Samuel Scott.
Mr. Dalziel.	Mr. Seddon.
Mr. Arthur Dewar.	Mr. Sinclair.
Mr. Robert Duncan.	Mr. Smeaton.
Mr. Erskine.	Mr. Halley Stewart.
Mr. Esslemont.	Mr. Solicitor-General for Scotland.
Mr. Munro Ferguson.	Mr. Starkey.
Major Anstruther-Gray.	Mr. Sutherland.
Mr. Gulland.	Mr. Tennant.
Mr. Leicester Harmsworth.	Mr. Mitchell-Thomson.
Viscount Helmsley.	Sir Andrew Torrance.
Mr. John Hope.	Captain Waring.
Sir John Jardine.	Mr. Weir.
Colonel Kenyon-Slaney.	Mr. Dundas White.
Mr. Laidlaw.	Mr. Williamson.
Mr. Lambton.	Mr. M'Kinnon Wood.
Mr. Lamont.	Mr. Younger.
Mr. Long.	

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 4, further considered.

Amendment proposed, in page 4, at the end of the last inserted Amendment, after the word "co-operation," to insert the words "one of the said Agricultural Commissioners shall be a person who can speak the Gaelic language"—(*Mr. Morton*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 17.

Sir Arthur Bignold.
Mr. Cochrane.
Mr. Robert Duncan.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Mr. Morton.
Mr. Charles Price.
Sir Samuel Scott.
Mr. Sineaton.
Mr. Starkey.
Mr. Sutherland.
Mr. Mitchell-Thomson.
Mr. Weir.

Noes, 21.

The Lord Advocate.
Mr. Ainsworth.
Mr. Cleland.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Molteno.
Mr. Murray.
Mr. Pirie.
Mr. Sinclair.
Mr. Solicitor-General for Scotland.
Sir Andrew Torrance.
Mr. Cathcart Wason.

Another Amendment proposed, at the end of the last inserted Amendment, after the word "co-operation," to insert the words "one of the said Agricultural Commissioners shall be an expert in forestry"—(*Mr. Munro Ferguson*).—Question proposed, "That those words be there inserted."

Debate arising : Mr. Sinclair rose in his place and claimed to move, "That the Question be now put."—Question put, "That the Question be now put."—The Committee divided :

Ayes, 33.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Buchanan.
Mr. Cleland.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Gulland.
Mr. Leicester Harmsworth.

Noes, 14.

Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Robert Duncan.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.

Ayes—continued.

Mr. John Hope.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Noes—continued.

Sir Samuel Scott.
 Mr. Starkey.
 Mr. Mitchell-Thomson.

Question put accordingly, "That those words be there inserted."—The Committee divided :

Ayes, 16.

Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. Morton.
 Mr. Pirie.
 Sir Samuel Scott.
 Mr. Smeaton.
 Mr. Starkey.
 Mr. Mitchell-Thomson.

Noes, 30.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Buchanan.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Charles Price.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Mr. Sinclair rose in his place and claimed to move "That the Question 'That all the words of the Clause down to and including the word "shall," in page 5, line 5, stand part of the Clause' be now put."

Question put, "That the Question 'That all the words of the Clause down to and including the word "shall," in page 5, line 5, stand part of the Clause' be now put."—The Committee divided.

Ayes, 33.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Buchanan.
Mr. Cleland.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Hope.
Sir John Jardine.
Mr. Laidlaw.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Pirie.
Mr. Charles Price.
Dr. Rainy.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Sutherland.
Sir Andrew Torrance.
Mr. Cathcart Wason.
Mr. Dundas White.
Mr. M'Kinnon Wood.

Noes, 14.

Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Robert Duncan.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Sir Samuel Scott.
Mr. Starkey.
Mr. Mitchell-Thomson.

Question put accordingly, "That all the words of the Clause down to and including the word 'shall,' in page 5, line 5, stand part of the Clause."—The Committee divided:

Ayes, 33.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Buchanan.
Mr. Cleland.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Hope.
Sir John Jardine.
Mr. Laidlaw.
Mr. Lamont.
Mr. Murray Macdonald.

Noes, 14.

Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Robert Duncan.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Sir Samuel Scott.
Mr. Starkey.
Mr. Mitchell-Thomson.

Ayes—*continued*.

Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Another Amendment proposed, in page 5, line 5, after the word "shall," to insert the words "not being powers for the purchase of land"—(*Mr. Cochrane*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 16.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Samuel Scott.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Noes, 31.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Buchanan.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Dr. Rainy.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Another Amendment proposed, in page 5, line 5, to leave out the words "not

being powers for the purchase of the land"—(*Mr. Cochrane*).—Question put, "That the words proposed to be left out stand part of the Clause."—The Committee divided:

Ayes, 32.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Buchanan.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Dr. Rainy.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Noes, 16.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Major Anstruther-Giray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Samuel Scott.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Mr. Sinclair rose in his place and claimed to move, "That the Question 'That Clause 4, as amended, stand part of the Bill' be now put."

Question put, "That the Question, 'That Clause 4, as amended, stand part of the Bill' be now put."—The Committee divided:

Ayes, 26.

Mr. Ainsworth.
 Mr. Barnes.
 Mr. Cleland.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Mr. Erskine.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.

Noes, 11.

Sir Henry Craik.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Ayes—*continued*.

Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. M'Kinnon Wood.

Question put accordingly, "That Clause 4 as amended stand part of the Bill."
 —The Committee divided.

Ayes, 30.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Mr. Erskine.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Mickling.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Noes, 12.

Sir Frederick Banbury.
 Sir Henry Craik
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Motion made and Question put, "That the Committee do sit till 4 o'clock this afternoon,"—(*Mr. Sinclair*).—The Committee divided;

Ayes, 30.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Cleland.
 Mr. Crombie.

Noes, 13.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Sir Henry Craik.
 Major Anstruther-Gray.
 Viscount Helmsley.

Ayes—*continued*.

Mr. Dalziel.
 Mr. Arthur Dewar.
 Mr. Erskine.
 Mr. Munro Ferguson.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.

Noes—*continued*.

Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Clause 5.

An Amendment proposed, in page 5, line 35, to leave out the words "eighty-five," in order to insert the word "fifty."—(*Sir Frederick Banbury*)—instead thereof.—Question put, "That the words proposed to be left out stand part of the Clause."—The Committee divided:

Ayes, 36.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Sir Arthur Bignold.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.

Noes, 7.

Sir Frederick Banbury.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Starkey.

Ayes—continued.

Dr. Rainy.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Mitchell-Thomson.
Sir Andrew Torrance.
Captain Waring.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Younger.

Clause *agreed to.*

Clause 6.

Amendment proposed, in page 5, line 40, to leave out the words “not exceeding thirty-five,” in order to insert the words “of forty”—(*Mr. Weir*)—instead thereof.—
Question proposed, “That the word ‘not,’ stand part of the clause.”

Debate arising: Mr. Sinclair rose in his place and claimed to move, “That the Question be now put.”

Question put, “That the Question be now put.”—The Committee divided:

Ayes, 36.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Beale.
Mr. Cleland.
Mr. Crombie.
Mr. Dalziel.
Mr. Arthur Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Munro Ferguson.
Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Laidlaw.
Mr. Lambton.
Mr. Lamont.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Pirie.
Mr. Charles Price.
Dr. Rainy.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.

Noes, 13.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

T

Ayes—*continued*.

Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Williamson.

Question put accordingly, "That the word 'not,' stand part of the Clause."—The Committee divided :

Ayes, 29.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Beale.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Mr. Erskine.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Dundas White.
 Mr. Williamson.

Noes, 18.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Mr. Morton.
 Sir Samuel Scott.
 Mr. Smeaton.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Weir.
 Mr. Younger.

Another Amendment proposed, in page 5, line 40, to leave out the word "exceeding," in order to insert the words "less than"—(*Mr. Mitchell-Thomson*)—instead thereof.—Question, "That the word 'exceeding,' stand part of the Clause,"—put, and *negatived*.

Question, "That those words be there inserted,"—put, and *agreed to*.

Another Amendment proposed, in page 6, line 4, after the word "if," to insert the words "the supply of water to townships"—(*Mr. Weir*).—Question proposed, "That those words be there inserted."

Debate arising: Mr. Sinclair rose in his place and claimed to move, "That the Question be now put."—The Committee divided :

Ayes, 32.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Williamson.

Noes, 16.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Major. Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Question put accordingly, "That the words 'the supply of water to townships' be there inserted."—The Committee divided:

Ayes, 20.

Sir Frederick Banbury.
 Mr. Beale.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Dalziel.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Mr. Morton.
 Sir Samuel Scott.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Weir.
 Mr. Younger.

Noes, 29.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.

Noes—*continued*.

Dr. Rainy.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Dundas White.
 Mr. Williamson.

Mr. Sinclair rose in his place and claimed to move "That the Question 'That Clause 6, as amended, stand part of the Bill' be now put."

Question put, "That the Question 'That Clause 6, as amended, stand part of the Bill' be now put."—The Committee divided :

Ayes, 34.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. McCallum.
 Mr. McCrae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Williamson.

Noes, 16.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Question put accordingly, "That Clause 6 as amended stand part of the Bill."
 —The Committee divided :

Ayes, 34.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.

Noes 16.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.

Ayes—*continued*.

Mr. Beale.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. McCallum.
 Mr. McCrae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Williamson.

Noes—*continued*.

Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

[Adjourned till Thursday next, at eleven o'clock.]

Thursday, 27th June, 1907.

MEMBERS PRESENT:

Mr. EUGENE WASON in the Chair.

The Lord Advocate.
Sir Frederick Banbury.
Mr. Beale.
Sir Arthur Bignold.
Mr. Bryce.
Mr. Buchanan.
Mr. Caldwell.
Mr. Cleland.
Mr. Cochrane.
Sir Henry Craik.
Mr. Crombie.
Viscount Dalrymple.
Mr. Dalziel.
Mr. Arthur Dewar.
Mr. John Dewar.
Mr. Robert Duncan.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Viscount Helmsley.
Mr. John Hope.
Sir John Jardine.
Colonel Kenyon-Slaney.
Mr. Laidlaw.
Mr. Lambton.
Mr. Lamont.

Mr. Long.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. James Mason.
Mr. Menzies.
Mr. Molteno.
Mr. Morton.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Sir Samuel Scott.
Mr. Seddon.
Mr. Sinclair.
Mr. Smeaton.
Mr. Abel Smith.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Mr. Mitchell-Thomson.
Sir Andrew Torrance.
Sir John Batty Tuke.
Captain Waring.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.
Mr. Williamson.
Mr. M'Kinnon Wood.
Mr. Younger.

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 7.

Motion made and Question proposed, "That Clause 7 be postponed"—(*Mr. Long*).

Motion, by leave, *withdrawn*.

Amendment proposed, in page 6, line 20, to leave out the words "Land Court," in order to insert the words "Agricultural Commissioners"—(*Mr. Long*)—instead thereof.—Question put, "That the words 'Land Court' stand part of the Clause."—The Committee divided :

Ayes, 34.

Mr. Buchanan.
Mr. Crombie.
Mr. Arthur Dewar.
Mr. John Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Mr. John Hope.
Sir John Jardine.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Morton.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Sir Andrew Torrance.
Captain Waring.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.
Mr. M'Kinnon Wood.

Noes, 16.

Sir Arthur Bignold.
Mr. Cleland.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Robert Duncan.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Viscount Helmsley.
Mr. Lambton.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Mitchell-Thomson.
Mr. Younger.

Another Amendment proposed, in page 6, line 25, after the second word "time," to insert the words "at intervals of not less than seven years"—(*Viscount Dalrymple*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 6, line 26, to leave out the word "new," in order to insert the word "small"—(*Mr. Cochrane*)—instead thereof.—Question proposed, "That the word 'new' stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 6, line 28, after the word "demand," to insert the words :

"Provided that, before transmitting such Report to the Agricultural Commissioners, the Commissioner for Small Holdings shall give the landlord or landlords of, and all parties having a right or interest in, such land an opportunity of being heard."

—(*Sir Arthur Bignold*)—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 6, line 30, after the word "demand," to insert the words "by suitable applicants"—(*Mr. Robert Duncan*).—Question put. "That those words be there inserted."—The Committee divided :

Ayes, 13.

Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Robert Duncan.
Viscount Helmsley.
Mr. Lambton.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Mitchell-Thomson.
Mr. Younger.

Noes, 35.

Mr. Bryce.
Mr. Buchanan.
Mr. Cleland.
Mr. Crombie.
Mr. Erskine.
Mr. Esslemont.
Mr. Munro Ferguson.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Mr. John Hope.
Sir John Jardine.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Morton.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Sir Andrew Torrance.
Captain Waring.
Mr. Cathcart Wason.
Mr. Weir.

Noes—*continued*.

Mr. Dundas White.
Mr. Wilkie.
Mr. M'Kinnon Wood.

Another Amendment proposed, in page 6, line 31, after the word "exists," to insert the words "and that the constitution of small holdings, in accordance with a scheme, will not cause undue displacement of any agricultural labourers and others presently employed on or about such land"—(*Mr. Long*).—Question proposed, "That those words be there inserted."

Debate arising: Mr. Sinclair rose in his place and claimed to move, "That the Question be now put." Question put, "That the Question be now put."—The Committee divided:

Ayes, 37.

Mr. Beale.
Mr. Bryce.
Mr. Cleland.
Mr. Crombie.
Mr. Arthur Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Munro Ferguson.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Hope.
Sir John Jardine.
Mr. Laidlaw.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Morton.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Sir Andrew Torrance.
Captain Waring.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.
Mr. M'Kinnon Wood.

Noes, 13.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Viscount Helmsley.
Mr. Lambton.
Mr. Long.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Mitchell-Thomson.
Sir John Batty Tuke.
Mr. Younger.

Question put accordingly, "That those words be there inserted."—The Committee divided:

Ayes, 15.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.

Noes, 35.

Mr. Beale.
Mr. Bryce.
Mr. Cleland.

Ayes—continued.

Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Viscount Helmsley.
 Mr. Lambton.
 Mr. Long.
 Sir Samuel Scott.
 Mr. Smeaton.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Sir John Batty Tuke.
 Mr. Younger.

Noes—continued.

Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Mr. Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Motion made and Question put, "That the Committee do sit till 4 o'clock this afternoon"—(*Mr. Sinclair*).—The Committee divided :

Ayes, 29.

Mr. Bryce.
 Mr. Cleland.
 Mr. Crombie.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.

Noes, 13.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Viscount Helmsley.
 Mr. Lambton.
 Mr. Long.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Ayes—continued.

Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Consideration of Clause resumed.

Amendment proposed, in page 6, line 35, to leave out sub-section (4) — (*Viscount Helmsley*).—Question put, "That sub-section (4) stand part of the Clause."—The Committee divided :

Ayes 30.

Mr. Beale.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Dalziel.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Noes 13.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Another Amendment proposed, in page 6, line 39, after the word "not," to insert the words "if the same shall have been agreed upon for a specified period"—(*Lord Helmsley*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 13.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.

Noes, 32.

The Lord Advocate.
 Mr. Beale.
 Mr. Crombie.
 Mr. John Dewar.

Ayes —continued.

Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Mr. Lambton.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Noes—continued.

The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Mr. Pirie.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. Williamson.
 Mr. M'Kinnon Wood.

Mr. Sinclair rose in his place and claimed to move, "That the Question 'That all the words of the Clause down to and including the word "assistance," in page 7, line 13, stand part of the Clause' be now put."

Question put, "That the Question 'That all the words of the Clause down to and including the word "assistance," in page 7, line 13, stand part of the Clause' be now put."—The Committee divided:

Ayes, 33.

The Lord Advocate.
 Mr. Beale.
 Mr. Cleland.
 Mr. Crombie.
 Mr. John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Mr. Pirie.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.

Noes, 13.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Mr. Lambton.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Ayes—continued.

Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. Williamson.
 Mr. M'Kinnon Wood.

Question put accordingly, "That all the words of the Clause down to and including the word 'assistance,' in page 7, line 13, stand part of the Clause."—The Committee divided :

Ayes, 33.

The Lord Advocate.
 Mr. Beale.
 Mr. Cleland.
 Mr. Crombie.
 Mr. John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Mr. Pirie.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. Williamson.
 Mr. M'Kinnon Wood.

Noes, 13.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Mr. Lambton.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Mr. Younger.

[Adjourned till Tuesday next at 11 o'clock.]

Tuesday, 2nd July, 1907.

MEMBERS PRESENT :

Mr. EUGENE WASON in the Chair.

The Lord Advocate.	Mr. Long.
Sir Frederick Banbury.	Mr. Murray Macdonald.
Mr. Barnes.	Mr. M'Callum.
Mr. Beale.	Mr. M'Crae.
Mr. Bryce.	Major M'Micking.
Mr. Caldwell.	Mr. James Mason.
Mr. Cleland.	Mr. Menzies.
Sir Thomas Glen Coats.	Mr. Molteno.
Mr. Cochrane.	Mr. Murray.
Sir Henry Craik.	Mr. Morton.
Mr. Crombie.	Mr. Pirie.
Viscount Dalrymple.	Mr. Charles Price.
Mr. Arthur Dewar.	Sir Robert Pullar.
Sir John Dewar.	Sir Samuel Scott.
Mr. Robert Duncan.	Mr. Sinclair.
The Master of Elibank.	Mr. Smeaton.
Mr. Erskine.	Mr. Abel Smith.
Mr. Esslemont.	Mr. Halley Stewart.
Mr. Munro Ferguson.	Mr. Solicitor-General for Scotland.
Mr. Findlay.	Mr. Starkey.
Major Anstruther-Gray.	Mr. Sutherland.
Mr. Gulland.	Sir Andrew Torrance.
Mr. Leicester Harmsworth.	Captain Waring.
Viscount Helmsley.	Mr. Cathcart Wason.
Mr. John Henderson.	Mr. Watt.
Mr. John Hope.	Mr. Weir.
Sir John Jardine.	Mr. Dundas White.
Colonel Kenyon-Slaney.	Mr. Williamson.
Mr. Lambton.	Mr. M'Kinnon Wood.
Mr. Lamont.	Mr. Younger.

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 7, further considered.

Amendment proposed, in page 7, lines 13 and 14, to leave out the words "either by way of gift or by way of loan or otherwise as they see fit," in order to insert the words "by way of loan or (except as regards dwelling-houses or other buildings) by way of gift"—(*Mr. Sinclair*)—instead thereof.—Question, "That the words proposed to be left out stand part of the Clause,"—put, and *negatived*.

Question, "That those words be there inserted,"—put, and *agreed to*.

Motion made and Question, "That the Committee do sit till 4 o'clock this afternoon"—(*Mr. Sinclair*),—put, and *agreed to*.

Consideration of Clause resumed.

Another Amendment proposed, in page 7, line 15, after the word "prescribe," to insert the words "such assistance may be provided by way of loans either to the landlord or to the tenant"—(*Colonel Kenyon-Slaney*).—Question proposed, "That those words be there inserted."

Amendment proposed to the proposed Amendment, to leave out the word "may," in order to insert the word "shall"—(*Sir Frederick Banbury*)—instead thereof.—Question, "That the word 'may' stand part of the proposed Amendment,"—put, and *negatived*.

Question, "That the word 'shall' be there inserted,"—put, and *agreed to*.

Question put, "That those words, as amended, be there inserted."—The Committee divided :

Ayes 11.

Sir Frederick Banbury.
Mr. Cochrane.
Viscount Dalrymple.
Mr. Robert Duncan.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.

Noes, 33.

The Lord Advocate.
Mr. Barnes.
Mr. Beale.
Mr. Cleland.
Sir Thomas Glen Coats.
Mr. Crombie.
Mr. Arthur Dewar.
Sir John Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Munro Ferguson.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Sir John Jardine.
Mr. Lamont.
Mr. Murray Macdonald.

Noes—*continued*.

Mr. M'Callum.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.

Another Amendment proposed, in page 7, line 15, after the word "prescribe," to insert the words:

"Provided that before prescribing the conditions, the Agricultural Commissioners shall give the landlord, and all other parties having a right or interest in the land, an opportunity of being heard"

—(*Mr. Younger*).—Question, "That those words be there inserted,"—put, and *negatived*.

Another Amendment proposed, in page 7, line 15, after the word "prescribe," to insert the words:

"Provided that every person who is registered as a new holder under the provisions of this Act shall, when the buildings on his holding have been erected at his expense or with assistance from the Agricultural Commissioners, be deemed to be the owner of such buildings under the provisions and for the purposes of the Public Health (Scotland) Act, 1897"

—(*Mr. Cochrane*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 7, line 18, after the word "where," to insert the words "it is proved to"—(*Mr. Lambton*).—Question proposed, "That those words be there inserted."

Debate arising: Mr. Sinclair rose in his place, and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided:

Ayes, 36.

The Lord Advocate.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Esslemont.

Noes, 14.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.

Ayes—*continued*.

Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Williamson.

Noes—*continued*.

Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Younger.

Question put accordingly, "That those words be there inserted."—The Committee divided :

Ayes, 14.

Sir Frederick Banbury.
 Sir Henry Craik.
 Mr. Cochrane.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Younger.

Noes, 36.

The Lord Advocate.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callam.
 Mr. Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.

Noes—*continued*.

Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Williamson.

Mr. Sinclair rose in his place, and claimed to move, "That the Question, 'That all the words of the Clause down to and including the words "Land Court" in page 7, line 31, stand part of the Clause,' be now put."

Question put, "That the Question 'That all the words of the Clause down to and including the words "Land Court," in page 7, line 31, stand part of the Clause,' be now put."—The Committee divided :

Ayes, 36.

The Lord Advocate.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Williamson.

Noes, 14.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Younger.

Question put accordingly, "That all the words of the Clause down to and including the words 'Land Court,' in page 7, line 31, stand part of the Clause."—The Committee divided :

Ayes. 36.

The Lord Advocate.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. Erskine.
 Mr. Esselmont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Williamson.

Noes 14.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Younger.

Another Amendment proposed, in page 7, line 31, to leave out from the first word "to" to the word "just," in line 36, both inclusive, in order to insert the words "to authorise them to purchase and to compel the landlord to sell the land required for that purpose at such price as, failing agreement, may be fixed by the Land Court"—(*Sir Frederick Banbury*)—instead thereof.—Question put, "That the words 'to make an order' stand part of the Clause."—The Committee divided:

Ayes, 34.

The Lord Advocate.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.

Noes, 12.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Younger.

Ayes—continued.

Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Williamson.

Another Amendment proposed, in page 7, lines 31 and 32, to leave out the words "or orders for the constitution of," in order to insert the words "for the leasing of such land to the Commissioners, who shall constitute"—(*Mr. Lamont*)—instead thereof.—Question proposed, "That the words proposed to be left out stand part of the Clause."

Debate arising: Mr. Sinclair rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided :

Ayes, 29.

The Lord Advocate.
 Mr. Beale.
 Mr. Bryce.
 Mr. Buchanan.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. M'Callam.
 Mr. Crae.
 Major M'Micking.
 Mr. Molteno.
 Sir Robert Pullar.
 Mr. Sinclair.

Noes, 19.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Lamont.
 Mr. James Mason.
 Mr. Pirie.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Younger.

Ayes—continued.

Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Watt.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Williamson.

Question put accordingly, "That the words proposed to be left out stand part of the Clause."—The Committee divided :

Ayes, 29.

The Lord Advocate.
 Mr. Beale.
 Mr. Bryce.
 Mr. Buchanan.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Watt.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Williamson.

Noes 20.

Sir Frederick Banbury.
 Sir Thomas Glen Coats.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Lamont.
 Mr. James Mason.
 Mr. Pirie.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Younger.

Mr. Sinclair rose in his place and claimed to move, "That the Question 'That all the words of the Clause down to and including the word "tenancy," in page 8, line 18, stand part of the Clause,' be now put."

Question put, "That the Question 'That all the words of the Clause down to and including the word "tenancy," in page 8, line 18, stand part of the Clause,' be now put."—The Committee divided :

Ayes, 32.

The Lord Advocate.
 Mr. Beale.
 Mr. Bryce.
 Mr. Buchanan.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.

Noes, 16.

Sir Frederick Banbury.
 Sir Thomas Glen Coats.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.

Ayes—continued.

Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Williamson.

Noes—continued.

Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Younger.

Question put accordingly, "That all the words of the Clause down to and including the word 'tenancy,' in page 8, line 18, stand part of the Clause."—The Committee divided :

Ayes, 33.

The Lord Advocate.
 Mr. Beale.
 Mr. Bryce.
 Mr. Buchanan.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.

Noes, 15.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Younger.

Ayes—continued.

Mr. Cathcart Wason.
Mr. Watt.
Mr. Weir.
Mr. Dundas White.
Mr. Williamson.

[Adjourned till Thursday next at eleven o'clock.]

Thursday, 4th July, 1907.

MEMBERS PRESENT

Mr. EUGENE WASON in the Chair.

Mr. Ainsworth.
Sir Frederick Banbury.
Mr. Beale.
Sir Arthur Bignold.
Mr. Bryce.
Mr. Buchanan.
Mr. Cleland.
Sir Thomas Glen Coats.
Mr. Cochrane.
Sir Henry Craik.
Mr. Crombie.
Viscount Dalrymple.
Mr. Dalziel.
Mr. Arthur Dewar.
Sir John Dewar.
Mr. Robert Duncan.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Munro Ferguson.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Viscount Helmsley.
Mr. John Henderson.
Mr. John Hope.
Sir John Jardine.
Colonel Kenyon-Slaney.
Mr. Laidlaw.
Mr. Lambton.

Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Major M'icking.
Mr. James Mason.
Mr. Menzies.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Dr. Rainy.
Sir Samuel Scott.
Mr. Sinclair.
Mr. Smeaton.
Mr. Abel Smith.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Starkey.
Mr. Sutherland.
Mr. Mitchell-Thomson.
Sir Andrew Torrance.
Captain Waring.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. M'Kinnon Wood.
Mr. Younger.

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 7 further considered.

Amendment proposed, in page 8, line 18, after the word "tenancy," to insert the words "or to any landlord in respect of an obligation to take over sheep stock at a valuation"—(*Mr. Sinclair*).—Question proposed, "That those words be there inserted."

Amendment proposed to the proposed Amendment, to leave out all the words after the word "landlord," in order to insert the words "or any other person in respect of any such transaction"—(*Colonel Kenyon-Slaney*)—instead thereof.—Question put, "That the words proposed to be left out stand part of the proposed Amendment."—The Committee divided :

Ayes, 33.

The Lord Advocate.
Mr. Beale.
Mr. Bryce.
Mr. Cleland.
Sir Thomas Glen Coates.
Mr. Crombie.
Mr. Dalziel.
Mr. Arthur Dewar.
Sir John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Munro Ferguson.
Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Lamont.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Charles Price.
Sir Robert Pullar.
Dr. Rainy.
Mr. Sinclair.
Mr. Smeaton.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Mr. Cathcart Wason.
Mr. Weir.
Mr. M'Kinnon Wood.

Noes, 13.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Another Amendment proposed to the proposed Amendment, after the word "valuation," to add the words "or in respect of buildings rendered unnecessary by the partition of any holding"—(*Mr. Younger*).—Question proposed, "That those words be there added."

Amendment, by leave, *withdrawn*.

Another Amendment proposed to the proposed Amendment, after the word "valuation," to add the words "way-going crops or other subjects or improvements"—(*Mr. Cochrane*).—Question proposed, "That those words be there added."

Debate arising: *Mr. Sinclair* rose in his place and claimed to move, "That the Question be now put," but the Chairman withheld his consent, as it appeared to him that the Committee was prepared to come to a decision without that Motion.

Question put, "That those words be there added."—The Committee divided:

Ayes, 15.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Robert Duncan.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Noes, 37.

Mr. Ainsworth.
Mr. Beale.
Mr. Bryce.
Mr. Cleland.
Sir Thomas Glen Coats.
Mr. Crombie.
Mr. Dalziel.
Mr. Arthur Dewar.
Sir John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Munro Ferguson.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Hope.
Sir John Jardine.
Mr. Lamont.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Dr. Rainy.
Mr. Sinclair.
Mr. Smeaton.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Sir Andrew Torrance.
Captain Waring.
Mr. Cathcart Wason.
Mr. Weir.
Mr. M'Kinnon Wood.

Question, "That the words 'or to any landlord in respect of an obligation to take over sheep stock at a valuation' be there inserted,"—put, and *agreed to*.

Mr. Sinclair rose in his place and claimed to move, "That the Question 'That Subsection 10, as amended, Subsections 11, 12, 13, and 14, stand part of the Clause,' be now put,"

Question put, "That the Question 'That Subsection 10, as amended, Subsections 11, 12, 13, and 14, stand part of the Clause,' be now put."—The Committee divided :

Ayes, 32.

Mr. Ainsworth.
Mr. Beale.
Mr. Bryce.
Mr. Cleland.
Sir Thomas Glen Coats.
Mr. Crombie.
Mr. Dalziel.
Sir John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Hope.
Sir John Jardine.
Mr. Lamont.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Molteno.
Mr. Murray.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Dr. Rainy.
Mr. Sinclair.
Mr. Solicitor-General for Scotland.
Sir Andrew Torrance.
Captain Waring.
Mr. Cathcart Wason.
Mr. M'Kinnon Wood.

Noes, 16.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Viscount Dalrymple.
Mr. Robert Duncan.
Mr. Munro Ferguson.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. James Mason.
Sir Samuel Scott.
Mr. Smeaton.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Question put accordingly, "That Subsection 10, as amended, Subsections 11, 12, 13, and 14, stand part of the Clause."—The Committee divided :

Ayes, 32.

Mr. Ainsworth.
Mr. Beale.
Mr. Bryce.
Mr. Cleland.
Sir Thomas Glen Coats.
Mr. Crombie.
Mr. Dalziel.
Sir John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Hope.
Sir John Jardine.
Mr. Lamont.

Noes, 16.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Robert Duncan.
Mr. Munro Ferguson.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Ayes—*continued*.

Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. M'Kinnon Wood.

Amendment proposed, in page 9, line 3, to leave out Subsection (15)—(*Mr. Sinclair*).—Question proposed, "That the words 'Except by agreement a new holder shall not be registered,' stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 9, line 3, to leave out from the words "(a) In" to the word "or," in line 7 (both inclusive)—(*Mr. Munro Ferguson*).—Question proposed, "That the words 'in respect of any land being or forming part of a farm not exceeding,' stand part of the Clause."

Debate arising: Mr. Sinclair rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided:

Ayes, 33.

Mr. Ainsworth.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Smeaton.

Noes, 16.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Ayes—continued.

Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Question put accordingly, ‘That the words ‘in respect of any land being or forming part of a farm not exceeding’ stand part of the Clause.’—The Committee divided :

Ayes 34.

Mr. Ainsworth.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Viscount Helmsley.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Noes 14.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Mr. Lambton.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr Mitchell-Thomson.
 Mr. Younger.

Mr. Sinclair rose in his place and claimed to move, “That the Question ‘That all the words of Subsection 15, down to and including the word “or,” in line 7, stand part of the Clause’ be now put.”

Question put, “That the Question ‘That all the words of Subsection 15, down to and including the word “or,” in line 7, stand part of the Clause’ be now put.”—The Committee divided :

Ayes, 30.

Mr. Ainsworth.
 Mr. Beale.

Noes 16.

Sir Frederick Banbury.
 Sir Arthur Bignold.

Ayes—continued.

Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coates.
 Mr. Crombie.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Noes—continued.

Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Cathcart Wason.
 Mr. Younger.

Question put accordingly, "That all the words of Subsection 15 down to and including the word 'or,' in line 7, stand part of the Clause."—The Committee divided:

Ayes, 29.

Mr. Ainsworth.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.

Noes 16.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Cathcart Wason.
 Mr. Younger.

Ayes—continued.

Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Motion made and Question put, "That the Committee do sit till four o'clock this afternoon"—(*Mr. Sinclair*).—The Committee divided :

Ayes, 36.

Mr. Ainsworth.
 Mr. Beale.
 Sir Arthur Bignold.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Sir John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Noes 14.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Robert Duncan.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Consideration of Clause resumed.

Amendment proposed, in page 9, line 8, to leave out Subsection "(b),"—(*Mr. Weir*)
 —Question proposed, "That the words 'in respect of any land' stand part of the Clause."

Debate arising: Mr. Sinclair rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided :

Ayes, 27.

Mr. Ainsworth.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Pirie.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Noes, 17.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Halley Stewart.
 Mr. Starkey.
 Mr. Sutherland.
 Mr. Mitchell-Thomson.
 Mr. Cathcart Wason.
 Mr. Younger.

Question put accordingly, "That the words 'in respect of any land' stand part of the Clause."—The Committee divided :

Ayes, 33.

Mr. Ainsworth.
 Sir Arthur Bignold.
 Mr. Cleland.
 Sir Thomas Glen Coates.
 Mr. Cochrane.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Viscount Helmsley.
 Mr. John Hope.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. James Mason.
 Mr. Menzies.
 Mr. Murray.
 Mr. Pirie.
 Sir Robert Pullar.
 Dr. Rainy.

Noes, 6.

Sir Frederick Banbury.
 Mr. Munro Ferguson.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Mr. Cathcart Wason.
 Mr. Weir.

Ayes—continued.

Sir Samuel Scott.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Solicitor-General for Scotland
 Sir Andrew Torrance.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.
 Mr. Younger.

Mr. Sinclair rose in his place and claimed to move, "That the Question that Clause 7 as amended stand part of the Bill" be now put.

Question put, "That the Question that Clause 7 as amended stand part of the Bill" be now put.—The Committee divided :

Ayes, 29.

Mr. Ainsworth.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Murray.
 Mr. Pirie.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Noes, 16.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney
 Mr. Lambton.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Smeaton.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Question put accordingly, "That Clause 7, as amended, stand part of the Bill."—The Committee divided :

Ayes, 32.

Mr. Ainsworth.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.

Noes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. James Mason.

Ayes—*continued*.

Mr. Leicester Harmsworth.
 Mr. John Hope.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Murray.
 Mr. Pirie.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Noes—*continued*.

Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Clause 8.

Amendment proposed, in page 9, line 36, after the word "Commissioners," to insert the words "Provided always that, where the Commissioners exercise such rights, they shall discharge the liabilities of the landholder, and"—(*Mr. Mason*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 9, line 36, after the word "Commissioners," to insert the words "after deduction of the amount of any outstanding liability owing by the landholder or his statutory successors to the landlord"—(*Mr. Mason*).—Question proposed, "That those words be there inserted."

Debate arising: Mr. Sinclair rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided:

Ayes, 36.

Mr. Ainsworth.
 Mr. Bryce.
 Mr. Buchanan.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Mr. John Hope.
 Sir John Jardine.

Noes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Ayes—continued.

Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Morton.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

Question put accordingly, "That those words be there inserted."—The Committee divided :

Ayes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Noes, 36.

Mr. Ainsworth.
 Mr. Bryce.
 Mr. Buchanan.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Morton.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.

Noes – *continued.*

Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.

[Adjourned till Tuesday next, at 11 o'clock.]

Tuesday, 9th July, 1907.

MEMBERS PRESENT

Mr. EUGENE WASON in the Chair.

The Lord Advocate.	Mr. Long.
Mr. Ainsworth.	Mr. Murray Macdonald.
Sir Frederick Banbury.	Mr. M'Crae.
Mr. Barnes.	Major M'Micking.
Mr. Beale.	Mr. James Mason.
Sir Arthur Bignold.	Mr. Molteno.
Mr. Buchanan.	Mr. Murray.
Mr. Cleland.	Mr. Morton.
Sir Thomas Glen Coats.	Mr. Charles Price.
Mr. Cochrane.	Sir Robert Pullar.
Sir Henry Craik.	Dr. Rainy.
Mr. Crombie.	Mr. Edmund Robertson.
Mr. Dalziel.	Sir Samuel Scott.
Mr. Arthur Dewar.	Mr. Seddon.
Sir John Dewar.	Mr. Sinclair.
Mr. Robert Duncan.	Mr. Smeaton.
The Master of Elibank.	Mr. Abel Smith.
Mr. Erskine.	Mr. Halley Stewart.
Mr. Esslemont.	Mr. Solicitor-General for Scotland.
Mr. Munro Ferguson.	Mr. Starkey.
Mr. Findlay.	Mr. Sutherland.
Mr. Gulland.	Mr. Mitchell-Thomson.
Mr. Leicester Harmsworth.	Sir Andrew Torrance.
Viscount Helmsley.	Mr. Cathcart Wason.
Mr. John Henderson.	Mr. Watt.
Sir John Jardine.	Mr. Weir.
Colonel Kenyon-Slaney.	Mr. Dundas White.
Mr. Laidlaw.	Mr. Wilkie.
Mr. Lambton.	Mr. M'Kinnon Wood.
Mr. Lamont.	Mr. Younger.

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 8, further considered.

Amendment proposed, in page 9, lines 37 and 38, to leave out the words "assessed by the Land Court," in order to insert the words "determined by arbitration in accordance with the provisions of the Agricultural Holdings Act, 1900"—(*Colonel Kenyon-Slaney*)—instead thereof.—Question proposed, "That the words proposed to be left out stand part of the Clause."

Debate arising: Mr. Sinclair rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided:

Ayes, 21.

The Lord Advocate.
Mr. Ainsworth.
Mr. Beale.
Mr. Cleland.
Mr. Crombie.
Mr. Dalziel.
Mr. Arthur Dewar.
Sir John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Gulland.
Mr. M'Crae.
Major M'Micking.
Mr. Molteno.
Mr. Morton.
Mr. Sinclair.
Mr. Smeaton.
Mr. Solicitor-General for Scotland.
Mr. Cathcart Wason.
Mr. Wilkie.

Noes, 9.

Sir Arthur Bignold.
Mr. Cochrane.
Mr. Munro Ferguson.
Colonel Kenyon-Slaney.
Mr. Long.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Question put accordingly, "That the words proposed to be left out stand part of the Clause."—The Committee divided:

Ayes, 23.

The Lord Advocate.
Mr. Ainsworth.
Mr. Beale.
Mr. Cleland.
Mr. Crombie.
Mr. Dalziel.
Mr. Arthur Dewar.
Sir John Dewar.

Noes, 10.

Sir Arthur Bignold.
Mr. Cochrane.
Mr. Munro Ferguson.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Mr. Abel Smith.
Mr. Starkey.

Ayes—continued.

The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Lamont.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Solicitor-General for Scotland.
 Mr. Cathcart Wason.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Noes—continued.

Mr. Mitchell-Thomson.
 Mr. Younger.

Mr. Sinclair rose in his place and claimed to move, "That the Question 'That Clause 8 stand part of the Bill' be now put."

Question put, "That the Question 'That Clause 8 stand part of the Bill' be now put."—The Committee divided :

Ayes, 24.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Beale.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Sir John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. Lamont.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Solicitor-General for Scotland.
 Mr. Cathcart Wason.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Noes, 11.

Sir Arthur Bignold.
 Mr. Cockrane.
 Mr. Munro Ferguson.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Question put accordingly, "That Clause 8 stand part of the Bill."—The Committee divided :

Ayes, 24.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Beale.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Sir John Dewar.
 The Master of Elibank.

Noes, 11.

Mr. Arthur Bignold.
 Mr. Cochrane.
 Mr. Munro Ferguson.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.

Ayes—continued.

Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. Lamont.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Solicitor-General for Scotland.
 Mr. Cathcart Wason.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Noes—continued.

Mr. Mitchell Thomson.
 Mr. Younger.

Amendment proposed, at the end of the Clause, after the word "made," to add the words :

"(4) The Land Court shall, on the application of the Agricultural Commissioners or of the landlord or the landholder, append to their order fixing a fair rent for a holding a record specifying the condition of the cultivation of the holding, and of the buildings and other permanent improvements thereon, and by whom such permanent improvements have been executed or paid for"

—(*Mr. Erskine*).—Question, "That those words be there added,"—put, and agreed to.

Another Amendment proposed, at the end of the last added Amendment, after the word "for," to add the words "and a similar record as to the rest of any farm or property out of which such holding has been formed"—(*Colonel Kenyon-Slaney*).—Question proposed, "That those words be there added."

Debate arising : Mr. Sinclair rose in his place and claimed to move, "That the Question be now put," but the Chairman withheld his assent and declined then to put that Question.

Debate resumed.

Question put, "That those words be there added"—The Committee divided :

Ayes, 11.

Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Noes, 31.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Sir John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Leicester Harmsworth.
 Mr. Lamont.
 Mr. M'Crae.
 Major M'Micking.

Noes—*continued*.

Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Solicitor-General for Scotland.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Clause, as amended, *agreed to*.

Clause 9.

Amendment proposed, in page 10, line 23, after the word "shall," to insert the words "reside on and"—(*Colonel Kenyon-Slaney*)—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 10, line 23, to leave out the words "by himself or his family," in order to insert the words "with or without hired labour"—(*Mr. Sinclair*)—instead thereof.—Question, "That the words proposed to be left out stand part of the Clause,"—put and *negatived*.

Question, "That those words be there inserted,"—put, and *agreed to*.

Motion made and Question put, "That the Committee do sit till 4 o'clock this afternoon."—The Committee divided :

Ayes, 24.

Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Mr. Cleland.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Charles Price.
 Mr. Sinclair.
 Mr. Solicitor-General for Scotland.
 Mr. Cathcart Wason.
 Mr. Wilkie.

Noes, 10.

Sir Frederick Banbury.
 Mr. Cochrane.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Consideration of Clause resumed.

Amendment proposed, in page 10, line 24, after the word "holding," to insert the words "according to the rules of good husbandry"—(*Mr. Younger*).—Question proposed, "That those words be there inserted."

Debate arising: *Mr. Sinclair* rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided:

Ayes, 36.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Cleland.
Sir Thomas Glen Coats.
Mr. Crombie.
Mr. Dalziel.
Mr. Arthur Dewar.
Sir John Dewar.
Mr. Erskine.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Sir John Jardine.
Mr. Laidlaw.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Crae.
Major M'Micking
Mr. Molteno.
Mr. Morton.
Mr. Charles Price.
Dr. Rainy.
Mr. Seddon.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Sir Andrew Torrance.
Mr. Cathcart Wason.
Mr. Watt.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.

Noes, 15.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Mr. Munro Ferguson.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Question put accordingly, "That those words be there inserted."—The Committee divided:

Ayes, 15.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Mr. Munro Ferguson.
Viscount Helmsley.

Noes, 37.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Cleland.
Sir Thomas Glen Coats.
Mr. Crombie.

*Ayes—continued.**Noes—continued.*

Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Tomson.
 Mr. Younger.

Mr. Dalziel
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Charles Price.
 Dr. Rainy.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Mr. Sinclair rose in his place and claimed to move, "That the Question 'That all the words of the Clause, down to and including the word "holding," in page 10, line 39, stand part of the Clause,' be now put."

Question put, "That the Question 'That all the words of the Clause, down to and including the word "holding," in page 10, line 39, stand part of the Clause,' be now put."—The Committee divided :

*Ayes, 36.**Noes, 15.*

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Ayes — continued.

Mr. Morton.
 Mr. Murray.
 Mr. Charles Price.
 Dr. Rainy.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. Wilkie.

Question put accordingly, "That all the words of the Clause down to and including the word 'holding,' in page 10, line 39, stand part of the Clause."—The Committee divided :

Ayes, 36.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Charles Price.
 Dr. Rainy.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. Wilkie.

Noes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Amendment proposed, in page 10, line 39, after the word "that," to insert the words "nothing in the said subsection shall be construed as debarring a landholder from subletting his dwelling-house to holiday visitors, and provided further that"—(*Mr. Lamont*).—Question proposed, "That those words be there inserted."

Debate arising : Mr. Sinclair rose in his place and claimed to move, "That the Question be now put," but the Chairman withheld his assent, as it appeared to him that the Committee was prepared to come to a decision without that Motion.

Question put, "That those words be there inserted."—The Committee divided :

Ayes, 37.

The Lord Advocate.
Mr. Ainsworth.
Sir Arthur Bignold.
Mr. Buchanan.
Mr. Cleland.
Sir Thomas Glen Coats.
Mr. Crombie.
Mr. Dalziel.
Mr. Arthur Dewar.
Sir John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Munro Ferguson.
Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Laidlaw.
Mr. Lamont.
Mr. M'Crae.
Major M'Micking.
Mr. Molteno.
Mr. Morton.
Mr. Murray.
Mr. Charles Price.
Sir Robert Pullar.
Dr. Rainy.
Mr. Edmund Robertson.
Sir Samuel Scott.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Sir Andrew Torrance.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Wilkie.

Noes, 8.

Sir Frederick Banbury.
Mr. Robert Duncan.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.

Another Amendment proposed, in page 11, line 4, after the word "dwelling-house," to add the words :

"Nothing in subsection seven of section one of the Act of 1886 shall be construed as precluding a landholder from recovering any compensation for damage by game which under section two of The Agricultural Holdings Act, 1906, is recoverable by a tenant, and the last-mentioned section shall apply accordingly with the substitution of the Land Court for arbitration."—(*Mr. Sinclair*).—Question proposed, "That those words be there added."

Amendment proposed to the proposed Amendment, in line 4, to leave out all the words after the word "apply"—(*Mr. Cochrane*).—Question proposed, "That the words proposed to be left out stand part of the proposed Amendment."

Debate arising: *Mr. Sinclair* rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided:

Ayes, 36.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Buchanan.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Sir John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Findlay.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Charles Price.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Edmund Robertson.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Noes, 16.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Question put accordingly, "That the words proposed to be left out stand part of the proposed Amendment."—The Committee divided:

Ayes, 37.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Buchanan.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.

Noes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Robert Duncan.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Lambton.

Ayes—continued.

Sir John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Munro Ferguson.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Laidlaw.
Mr. Lamont.
Mr. M'Crae.
Major M'Micking.
Mr. Molteno.
Mr. Morton.
Mr. Murray.
Mr. Charles Price.
Sir Robert Pullar.
Dr. Rainy.
Mr. Edmund Robertson.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Sir Andrew Torrance.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.

Noes—continued.

Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

[Adjourned till Thursday next at 11 o'clock.]

Thursday, 11th July, 1907.

MEMBERS PRESENT:

Mr. EUGENE WASON in the Chair.

The Lord Advocate.	Mr. M'Crae.
Mr. Ainsworth.	Major M'Micking.
Sir Frederick Banbury.	Mr. James Mason.
Mr. Beale.	Mr. Menzies.
Sir Arthur Bignold.	Mr. Molteno.
Mr. Chancellor of the Exchequer.	Mr. Murray.
Sir Thomas Glen Coats.	Mr. Morton.
Mr. Cochrane.	Mr. Charles Price.
Mr. Cameron Corbett.	Sir Robert Pullar.
Sir Henry Craik.	Dr. Rainy.
Mr. Crombie.	Mr. Sinclair.
Mr. Dalziel.	Mr. Smeaton.
Mr. Arthur Dewar.	Mr. Abel Smith.
Sir John Dewar.	Mr. Halley Stewart.
Mr. Robert Duncan.	Mr. Solicitor-General for Scotland.
The Master of Elibank.	Mr. Starkey.
Mr. Erskine.	Mr. Sutherland.
Mr. Esslemont.	Mr. Tennant.
Mr. Munro Ferguson.	Mr. Mitchell-Thomson.
Major Anstruther-Gray.	Sir Andrew Torrance.
Mr. Leicester Harmsworth.	Mr. Cathcart Wason.
Viscount Helmsley.	Mr. Weir.
Mr. John Henderson.	Mr. Dundas White.
Colonel Kenyon-Slaney.	Mr. Wilkie.
Mr. Laidlaw.	Mr. Williamson.
Mr. Lamont.	Mr. M'Kinnon Wood.
Mr. Long.	Mr. Younger.
Mr. Murray Macdonald.	

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 9 further considered.

Amendment again proposed, in page 11, line 4, after the word "dwelling-house," to add the words :

"(3) Nothing in subsection seven of section one of the Act of 1886 shall be construed as precluding a landholder from recovering any compensation for damage by game which under section two of The Agricultural Holdings Act, 1906, is recoverable by a tenant, and the last-mentioned section shall apply accordingly with the substitution of the Land Court for arbitration "

—(*Mr. Sinclair*).—Question, "That those words be there added,"—put, and agreed to.

Question put, "That the Clause as amended stand part of the Bill."—The Committee divided :

Ayes, 23.

The Lord Advocate.
Mr. Ainsworth.
Mr. Beale.
Mr. Crombie.
Mr. Dalziel.
Mr. Arthur Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Lamont.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Charles Price.
Sir Richard Pullar.
Mr. Sinclair.
Mr. Smeaton.
Mr. Solicitor-General for Scotland.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Wilkie.

Noes, 14.

Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Mr. Leicester Harmsworth.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Long.
Mr. James Mason.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Clause 10.

Amendment proposed, in page 11, line 15, to leave out Subsection (c)—(*Mr. Younger*).—Question proposed, "That Subsection (c) stand part of the Clause."

Amendment, by leave, *withdrawn*.

Clause, *agreed to*

Clause 11.

Amendment proposed in page 11, line 25, to leave out the words "at the termination of the lease"—(*Mr. Abel Smith*).—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 11, line 22, to leave out all the words after the word "adjusted," in order to add the words "in the manner prescribed by the Agricultural Holdings Act, 1906, Clause 1, Section 2"—(*Sir Frederick Banbury*)—instead thereof.—Question put, "That the words proposed to be left out stand part of the Clause"—The Committee divided :

Ayes, 29.

The Lord Advocate.
Mr. Ainsworth.
Mr. Beale.
Mr. Chancellor of the Exchequer.
Sir Thomas Glen Coats.
Mr. Crombie.
Mr. Dalziel.
Sir John Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Leicester Harmsworth.
Mr. Lamont.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Charles Price.
Sir Robert Pullar.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Sir Andrew Torrance.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Wilkie.

Noes, 13.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. James Mason.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Another Amendment proposed in page 11, line 28, to leave out the words "the Landlord or the leaseholder," in order to insert the words "any party interested"—(*Mr. Mitchell-Thomson*)—instead thereof.—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 11, line 28, after the word "leaseholder" to add the words :

"Provided always that—

- (1) Where the permanent improvements or any part thereof of such holding have been erected or made at the expense of the landlord or his predecessors in title, the fair value of such improvements shall be ascertained; and

- (2) thereafter the tenant shall take over and be responsible for such improvements at the ascertained value, and shall be bound to maintain the same in good order and condition to the satisfaction of the landlord, fair tear and wear excepted; and
- (3) prior to such tenant leaving the holding, whether by the renunciation of his tenancy or on his removal, such improvements shall be valued, and in the event of depreciation, fair tear and wear excepted, the tenant shall be bound to pay such ascertained loss to the landlord "

—(*Sir Henry Craik*).—Question proposed, "That those words be there added."

Amendment proposed to the proposed Amendment, in line 3, after the word "title," to insert the words "or of the Agricultural Commissioners"—(*Colonel Kenyon-Slaney*).—Question, "That those words be there inserted,"—put, and agreed to.

Question put, "That those words, as amended, be there added."—The Committee divided :

Ayes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Noes, 28.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Beale.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Leicester Harmsworth.
 Mr. Murray Macdonald.
 Mr. M'Crae.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Smeaton.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Clause agreed to.

Clause 12.

Motion made and Question proposed, "That Clause 12 be postponed"—(*Viscount Helmsley*).

Motion, by leave, *withdrawn*.

Clause agreed to.

Clause 13.

Amendment proposed, in page 11, line 38, to leave out all the words after the word "landholders," to the end of the Clause—(*Mr. Cochrane*).

Question proposed, That the words proposed to be left out stand part of the Clause.

Amendment, by leave, *withdrawn*.

Motion made, and Question put, "That the Committee do sit till 4 o'clock this afternoon"—(*Mr. Sinclair*).—The Committee divided :

Ayes, 28.

The Lord Advocate.
Mr. Ainsworth.
Sir Thomas Glen Coats.
Mr. Crombie.
Mr. Arthur Dewar.
Sir John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Munro Ferguson.
Mr. Leicester Harmsworth.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Crae.
Mr. Menzies.
Mr. Molteno.
Mr. Morton.
Sir Robert Pullar.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Sir Andrew Torrance.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.
Mr. M'Kinnon Wood.

Noes, 13.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Mr. Robert Duncan.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Long.
Mr. James Mason.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Consideration of Clause resumed.

Amendment proposed, in page 11, line 41, after the word "landholders," to insert the words :

"Provided that all applications for enlargement under section eleven of the Act of 1886, shall be made to the Agricultural Commissioners, and subsections six, seven, eight, nine, ten, eleven, twelve, fifteen, sixteen, and seventeen of the section of this Act relative to the constitution of new holdings shall, with the necessary modifications apply as fully for the purpose of applications for enlargement as for the purpose of the constitution of new holdings, and the expressions "application" and "applicants," where occurring in section twelve or section twenty-one of the Act of 1886, shall be construed as meaning an application from the Agricultural Commissioners under subsection eight aforesaid and the persons referred to in such application "

—(*Mr. Sinclair*).—Question, "That those words be there inserted,"—put, and agreed to.

Another Amendment proposed, in page 12, line 1, to leave out Subsection (2)—(*Viscount Helmsley*).—Question put, "That the words :

"(2) Section thirteen of the Act of 1886 shall cease to have effect, provided that

land shall not be deemed available land for the enlargement of a holding unless it is land in respect of which ”

stand part of the Clause.”—The Committee divided :

Ayes, 32.

The Lord Advocate.
Mr. Ainsworth.
Mr. Beale.
Sir Arthur Bignold.
Sir Thomas Glen Coats.
Mr. Crombie.
Mr. Arthur Dewar.
Sir John Dewar.
Mr. Erskine.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Mr. Laidlaw.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Sir Robert Pullar.
Dr. Rainy.
Mr. Sinclair.
Mr. Smeaton.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Sir Andrew Torrance.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Williamson.

Noes, 9.

Mr. Cochrane.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Long.
Mr. James Mason.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Another Amendment proposed, in page 12, to leave out line 4, in order to insert the words “a person would be admissible to registration as a new holder under this Act”—(*Mr. Sinclair*)—instead thereof.—Question, “That the words proposed to be left out stand part of the Clause,”—put, and *negatived*.

Question, “That those words be there inserted,”—put, and *agreed to*.

Another Amendment proposed, in page 12, in lines 5 and 6, to leave out the words “if arable land”—(*Mr. Mitchell-Thomson*).—Question proposed, “That the words proposed to be left out stand part of the Clause.”

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 12, line 9, to leave out all the words after the word “That” to the end of the Clause, in order to add the words “or acreage thereof shall exceed the present rent or acreage competent for a new holding under this Act”—(*Mr. Crombie*)—instead thereof.—Question, “That the words proposed to be left out stand part of the Clause,”—put, and *negatived*.

Question, “That those words be there added,”—put, and *agreed to*.

Clause, as amended, *agreed to*.

[Adjourned till Tuesday next at eleven o'clock.]

Tuesday, 16th July, 1907.

MEMBERS PRESENT :

Mr. EUGENE WASON, in the Chair

The Lord Advocate.	Mr. Laidlaw.
Mr. Ainsworth.	Mr. Lamont.
Sir Frederick Banbury.	Mr. Long.
Mr. Barnes.	Mr. Murray Macdonald.
Mr. Beale.	Mr. M'Callum.
Sir Arthur Bignold.	Mr. M'Crae.
Mr. Bryce.	Major M'Micking.
Mr. Buchanan.	Mr. James Mason.
Mr. Caldwell.	Mr. Menzies.
Mr. Cleland.	Mr. Molteno.
Sir Thomas Glen Coats.	Mr. Morton.
Mr. Cochrane.	Mr. Murray.
Sir Henry Craik.	Mr. Pirie.
Mr. Crombie.	Mr. Charles Price.
Mr. Dalziel.	Sir Robert Pullar.
Mr. Arthur Dewar.	Dr. Rainy.
Sir John Dewar.	Sir Samuel Scott.
Mr. Robert Duncan.	Mr. Sinclair.
The Master of Elibank.	Mr. Abel Smith.
Mr. Erskine.	Mr. Halley Stewart.
Mr. Esslemont.	Mr. Solicitor-General for Scotland.
Mr. Munro Ferguson.	Mr. Starkey.
Major Anstruther-Gray.	Mr. Mitchell-Thomson.
Mr. Gulland.	Sir Andrew Torrance.
Mr. Leicester Harmsworth.	Mr. Cathcart Wason.
Viscount Helmsley.	Mr. Weir.
Mr. John Henderson.	Mr. Dundas White.
Mr. John Hope.	Mr. Wilkie.
Sir John Jardine.	Mr. M'Kinnon Wood.
Colonel Kenyon-Slaney.	Mr. Younger.

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 14.

Motion made and Question proposed, "That the Committee do now adjourn"—
(*Mr. Long*).

Debate arising: *Mr. Halley Stewart* rose in his place and claimed to move, "That the Question be now put," but the Chairman withheld his assent and declined then to put that Question.

Debate resumed: *Mr. Sinclair* rose in his place and claimed to move "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided:

Ayes, 32.

The Lord Advocate.
Mr. Ainsworth.
Mr. Beale.
Mr. Cleland.
Mr. Crombie.
Mr. Dalziel.
Mr. Arthur Dewar.
Sir John Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Lamont.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Morton.
Mr. Murray.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Mr. Sinclair.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.
Mr. M'Kinnon Wood.

Noes, 13.

Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon Slaney.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Question put accordingly, "That the Committee do now adjourn."—The Committee divided:

Ayes, 13.

Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Noes, 33.

The Lord Advocate.
Mr. Ainsworth.
Mr. Beale.
Mr. Bryce.
Mr. Cleland.
Mr. Crombie.
Mr. Dalziel.
Mr. Arthur Dewar.
Sir John Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Lamont.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Morton.
Mr. Murray.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Mr. Sinclair.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.
Mr. M'Kinnon Wood.

Amendment proposed, in page 12, line 12, after the word "ceased," to insert the words "or is about to cease"—(*Mr. Sinclair*).—Question, "That those words be there inserted,"—put, and *agreed to*.

Another Amendment proposed, in page 12, line 13, to leave out all the words after the word "landlord" to the end of the Clause, in order to add the words:

"May let the holding to a neighbouring landholder for the enlargement of his holding or to a new holder, but the landlord, if he fails to do so, shall intimate such failure to the Agricultural Commissioners, who may, on repaying to the landlord any sum paid by him to the out-going landholder, let the holding to a new holder at the former fair rent, or occupy the holding themselves on the same terms and conditions. In default of notice from the Agricultural Commissioners of their intention to take either of these courses the landlord shall be entitled to resume the holding for such purposes as he deems best"

—(*Mr. Starkey*)—instead thereof.—Question put, "That the words 'shall forthwith intimate the fact to the Agricultural Commissioners, and shall not if the Land Court on their application,' stand part of the Clause."—The Committee divided:

Ayes, 38.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Dalziel.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Munro Ferguson.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Noes, 14.

Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Robert Duncan.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon Slaney.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Another Amendment proposed, in page 12, line 15, to leave out the words "so decide and during such period," in order to insert the words "after hearing the landlord so determine, and during such period and subject to such conditions which shall include payment of compensation to the landlord by the Agricultural Commissioners in respect of any loss arising out of such determination"—(*Mr. Sinclair*)—instead thereof.—Question, "That the words proposed to be left out stand part of the Clause,"—put, and *negatived*.

Question, "That those words be there inserted,"—put, and *agreed to*.

Another Amendment proposed, at the end of the last inserted Amendment, after the word "determination," to insert the words "to such amount as may be determined by arbitration in accordance with the provisions of the Agricultural Holdings Act 1906"—(*Colonel Kenyon-Slaney*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 16.

Sir Frederick Banbury.
 Sir Arthur Bignold.

Noes, 37.

The Lord Advocate.
 Mr. Ainsworth.

Ayes—continued.

Mr. Cochrane.
 Sir Henry Craik.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Noes—continued.

Mr. Barnes.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Another Amendment proposed, in page 12, line 19, after the word "holder," to add the words :

" Provided that where, under the provisions of the Landholders Acts, the holding was, otherwise than by agreement, constituted as a new holding or enlarged, it shall be the duty of the Land Court, upon an application by the landlord, after hearing the Agricultural Commissioners, to assess any damage or injury done by the constitution or enlargement of the holding, as the case may be, to the landlord through depreciation in the letting value of the land comprised in the holding, or through the imposition of liabilities in respect of permanent improvements thereon, and to require the Agricultural Commissioners to pay the landlord compensation in respect of such damage or injury to such amount as the Land Court determine "

—(*Mr. Sinclair*).—Question proposed, "That those words be there added."

Amendment proposed to the proposed Amendment, in line 1, to leave out all the words after the word "that" to the end of the proposed Amendment, in order to insert the words "compensation shall be payable to any landlord or occupier for any loss such landlord or occupier may prove to be due to the action of the Land Court, or of the Agricultural Commissioners, to such amount as may be determined by arbitration in accordance with the provisions of The Agricultural Holdings Act, 1906"
 —(*Mr. Munro Ferguson*)—instead thereof.—Question proposed, "That the words 'where, under the provisions of the Landholders Acts, the holding was,' stand part of the proposed Amendment."

Debate arising : Mr. Sinclair rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided :

Ayes, 30.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Beale.
Sir Thomas Glen Coats.
Mr. Crombie.
Sir John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Laidlaw.
Mr. Lamont.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Morton.
Mr. Murray.
Mr. Sinclair.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Sir Andrew Torrance.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.

Noes, 16.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Mr. Robert Duncan.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Question put accordingly, "That the words 'where, under the provisions of the Landholders Acts, the holding was,' stand part of the proposed Amendment."—The Committee divided :

Ayes, 29.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Beale.
Mr. Crombie.
Sir John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Laidlaw.
Mr. Lamont.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.

Noes, 17.

Sir Frederick Banbury.
Sir Arthur Bignold.
Sir Thomas Glen Coats.
Mr. Cochrane.
Sir Henry Craik.
Mr. Robert Duncan.
Mr. Munro Ferguson.
Major Anstruther Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Ayes—continued.

Mr. Morton.
 Mr. Murray.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Question again proposed, "That the words :

' Provided that where, under the provisions of the Landholders Acts, the holding was, otherwise than by agreement, constituted as a new holding or enlarged, it shall be the duty of the Land Court, upon an application by the landlord, after hearing the Agricultural Commissioners, to assess any damage or injury done by the constitution or enlargement of the holding, as the case may be, to the landlord through depreciation in the letting value of the land comprised in the holding, or through the imposition of liabilities in respect of permanent improvements thereon, and to require the Agricultural Commissioners to pay the landlord compensation in respect of such damage or injury to such amount as the Land Court determine '—be there added."

Debate arising : Mr. Sinclair rose in his place and claimed to move, "That the Question be now put."

Question put, "That the Question be now put."—The Committee divided :

Ayes, 30.

Noes, 15.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Sir John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Sir Frederick Banbury.
 Mr. Cochrane.
 Sir Hery Craik.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Question put accordingly, "That those words be there added."—The Committee divided :

Ayes, 29.

The Lord Advocate.
Mr. Ainsworth.
Mr. Beale.
Sir Thomas Glen Coats.
Mr. Crombie.
Sir John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Laidlaw.
Mr. Lamont.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Morton.
Mr. Murray.
Mr. Sinclair.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Sir Andrew Torrance.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.

Noes, 16.

Sir Frederick Banbury.
Mr. Barnes.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Mr. Sinclair rose in his place and claimed to move "That the Question 'That Clause 14, as amended, stand part of the Bill be now put.'"

Question put, "That the Question 'That Clause 14, as amended, stand part of the Bill' be now put."—The Committee divided :

Ayes, 30.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Beale.
Sir Thomas Glen Coats.
Mr. Crombie.
Sir John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. Laidlaw.
Mr. Lamont.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Morton.

Noes, 15.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Viscount Helmsley.
Colonel Kenyon-Slaney.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Ayes—*continued*.

Mr. Murray.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Question put accordingly, "That Clause 14, as amended, stand part of the Bill."—
 The Committee divided :

Ayes, 30.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Beale.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Sir John Dewar.
 The Master of Elibank.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Menzies.
 Mo. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Charles Price.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Noes, 16.

Sir Frederick Banbury.
 Mr. Barnes.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Motion made and Question put, "That the Committee do sit till 4 o'clock this afternoon"—(*Mr. Sinclair*).—The Committee divided :

Ayes, 22.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Sir John Dewar.

Noes, 5.

Mr. Cochrane.
 Viscount Helmsley.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.

Ayes—continued.

Mr. Munro Ferguson.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.

Clause 15.

Amendment proposed, in page 12, line 21, after the word “words,” to insert the words “being the corresponding term whether of Whitsunday or Martinmas, at which he entered”—(*Mr. Mitchell-Thomson*).—Question proposed, “That those words be there inserted.”

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 12, line 22, to leave out all the words after the word “that,” to the end of the Clause, in order to insert the words “where the Land Court, after application by landholder, has fixed the fair rent the landholder shall not be entitled to renounce his tenancy for a period of seven years thereafter unless the landlord agrees to accept such renunciation at any time prior to the expiry of such period”—(*Mr. Cochrane*)—instead thereof.—Question proposed, “That the words ‘such notice shall not without the consent of the Land Court, be effective unless within two months from the date of notice, the landlord transmits a copy thereof to the Agricultural Commissioners,’ stand part of the Clause.”

Debate arising: Mr. Sinclair rose in his place and claimed to move, “That the Question be now put.”

Question put, “That the Question be now put.”—The Committee divided :

Ayes, 30.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Mr. John Hope.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.

Noes, 13.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Younger.

Ayes—continued.

Mr. Murray.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Question put accordingly, "That the words 'such notice shall not without the consent of the Land Court, be effective unless within two months from the date of notice the landlord transmits a copy thereof to the Agricultural Commissioners,' stand part of the Clause."—The Committee divided :

Ayes, 29.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Noes, 13.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Younger

Another Amendment proposed, in page 12, line 24, to leave out the words "transmits a copy thereof," in order to insert the words "or the landholder intimates the same in writing"—(*Mr. Sinclair*)—instead thereof.—Question, "That the words proposed to be left out stand part of the Clause"—put, and *negatived*.

Question, "That those words be there inserted,"—put, and *agreed to*.

Mr. Sinclair rose in his place and claimed to move, "That the Question 'That Clause 15, as amended, stand part of the Bill' be now put."

Question put, "That the Question 'That Clause 15, as amended, stand part of the Bill' be now put."—The Committee divided :

Ayes 30.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Sir John Dewar.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Pirie.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Noes, 13.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cockrane.
 Sir Henry Craik.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Younger.

Question put accordingly, "That Clause 15, as amended, stand part of the Bill."—
 The Committee divided :

Ayes, 31.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Sir John Dewar.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Pirie.
 Sir Robert Pullar.
 Dr. Rainy.

Noes, 13.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Younger.

Ayes—continued.

Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Clause 16.

Amendment proposed, in page 12, line 32, after the word “feuing,” to insert the words “or sale or letting on long lease”—(*Colonel Kenyon-Slaney*). —Question proposed, “That those words be there inserted.”

Debate arising: Mr. Sinclair rose in his place and claimed to move, “That the Question be now put.”

Question put, “That the Question be now put.”—The Committee divided :

Ayes, 31.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Buchanan.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Pirie.
 Sir Robert Pullar.
 Dr. Rainey.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Noes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Question put accordingly, "That those words be there inserted."—The Committee divided :

Ayes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Noes, 32.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Bryce.
 Mr. Buchanan.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Pirie.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Mr. Sinclair rose in his place and claimed to move, "That the Question 'That Clause 16 stand part of the Bill' be now put."

Question put, "That the Question 'That Clause 16 stand part of the Bill' be now put."—The Committee divided :

Ayes, 30.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Bryce.
 Mr. Buchanan.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.

Noes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Ayes—continued.

Mr. Murray.
 Mr. Pirie.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Question put accordingly, "That Clause 16 stand part of the Bill."—The Committee divided :

Ayes, 32.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Bryce.
 Mr. Buchanan.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Esslemont.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. M'Crac.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Pirie.
 Sir Robert Pullar.
 Dr. Rainy.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.

Noes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Mr. Robert Duncan.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

[Adjourned till Thursday next at eleven o'clock.]

Thursday, 18th July, 1907.

MEMBERS PRESENT :

Mr. EUGENE WASON in the Chair.

The Lord Advocate.	Mr. Long.
Mr. Ainsworth.	Mr. Murray Macdonald.
Sir Frederick Banbury.	Mr. M'Callum.
Mr. Barnes.	Mr. M'Crae.
Mr. Beale.	Major M'Micking.
Sir Arthur Bignold.	Mr. James Mason.
Mr. Bryce.	Mr. Menzies.
Mr. Caldwell.	Mr. Molteno.
Mr. Cleland.	Mr. Morton.
Sir Thomas Glen Coats.	Mr. Murray.
Mr. Cochrane.	Mr. Pirie.
Sir Henry Craik.	Mr. Charles Price.
Mr. Crombie.	Sir Robert Pullar.
Viscount Dalrymple.	Sir Samuel Scott.
Mr. Dalziel.	Mr. Seddon.
Mr. Arthur Dewar.	Mr. Sinclair.
Sir John Dewar.	Mr. Smeaton.
The Master of Elibank.	Mr. Abel Smith.
Mr. Erskine.	Mr. Solicitor-General for Scotland.
Mr. Esslemont.	Mr. Starkey.
Mr. Munro Ferguson.	Mr. Mitchell-Thomson.
Major Anstruther-Gray.	Sir Andrew Torrance.
Mr. Gulland.	Mr. Cathcart Wason.
Mr. Leicester Harmsworth.	Mr. Weir.
Viscount Helmsley.	Mr. Dundas White.
Mr. John Hope.	Mr. Wilkie.
Sir John Jardine.	Mr. M'Kinnon Wood.
Colonel Kenyon-Slaney.	Mr. Younger.
Mr. Laidlaw.	

SMALL LANDHOLDERS (SCOTLAND) BILL.

Motion made and Question put, "That the Committee do sit till 4 o'clock this afternoon"—(*Mr. Sinclair*).—The Committee divided :

Ayes, 23.

Mr. Ainsworth.
Mr. Beale.
Sir Arthur Bignold.
Mr. Cleland.
Mr. Arthur Dewar.
Sir John Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Munro Ferguson.
Mr. Gulland.
Mr. Leicester Harmsworth.
Sir John Jardine.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Molteno.
Mr. Morton.
Mr. Murray.
Mr. Sinclair.
Mr. Smeaton.
Mr. Solicitor-General for Scotland.
Mr. Cathcart Wason.
Mr. Dundas White.

Noes, 7.

Mr. Cochrane.
Sir Henry Craik.
Colonel Kenyon-Slaney.
Mr. Long.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Clause 17.

Amendment proposed, in page 12, line 38, to leave out all the words after the word "thereof" to the end of the Clause—(*Mr. Cochrane*).—Question, "That the words of the Clause down to and including the word 'person,' in page 13, line 1, stand part of the Clause,"—put, and *negatived*.

Question, "That all the words from the word 'being,' in page 13, line 1, to the word 'discharged,' in page 13, line 16 (both inclusive), stand part of the Clause,"—put, and *negatived*.

Clause, as amended, *agreed to*.

Clause 18.

Amendment proposed, in page 13, line 22, to leave out the word "may," in order to insert the word "shall"—(*Mr. Mason*)—instead thereof.—Question, "That the word 'may' stand part of the Clause,"—put, and *negatived*.

Question, "That the word 'shall' be there inserted,"—put, and *agreed to*.

Another Amendment proposed, in page 13, line 26, to leave out the words "after such hearing or other enquiry as they think fit," in order to insert the words "shall hear such person or persons on his or their application, and make such enquiry as

they may deem necessary, and"—(*Sir Henry Craik*)—instead thereof.—Question, "That the words proposed to be left out stand part of the Clause,"—put, and *negatived*.

Question, "That those words be there inserted,"—put, and *agreed to*.

Another Amendment proposed, in page 13, line 31, to leave out the words "without any," in order to insert the word "on"—(*Viscount Helmsley*)—instead thereof.—Question proposed, "That the words 'without any' stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 13, lines 32 and 33, to leave out the words "without prejudice to the powers conferred by section five of the said Act"—(*Mr. Cochrane*).—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Clause, as amended, *agreed to*.

Clause 19.

Amendment proposed, in page 14, line 11, after the word "Acts," to insert the words, "the decision of"—(*Mr. Long*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 14, line 16, after the word "may," to insert the words "of their own motion, or shall on the application of any party to any proceeding pending before them unless they consider such application frivolous or vexatious"—(*Mr. Mitchell-Thomson*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 14, line 24, to leave out from the word "they" to the word "them," in line 26 (both inclusive)—(*Mr. Cochrane*).—Question proposed, "That the words 'they may summon and examine on oath such witnesses as' stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 14, line 25, to leave out the word "they," in order to insert the words "any of the parties"—(*Viscount Helmsley*)—instead thereof.—Question proposed, "That the word 'they,' stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 14, to leave out Subsection (4)—(*Mr. Long*).—Question, proposed, "That Subsection 4 stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 14, line 35, to leave out the words "to any one member or"—(*Mr. Starkey*).—Question put, "That the words proposed to be left out stand part of the Clause."—The Committee divided:

2 N

Ayes, 32.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Mr. Laidlaw.
 Mr. Murray Macdonald.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Noes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Another Amendment proposed, in page 14, line 36, to leave out the words "or without"—(*Mr. Abel Smith*).—Question put, "That the words 'or without' stand part of the Clause."—The Committee divided :

Ayes, 30.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Dalziel.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Sir John Jardine.
 Mr. Laidlaw.
 Major M'Micking.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.

Noes, 16.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Ayes—continued.

Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Another Amendment proposed, in page 14, line 41, after the word "together," to insert the words :

"Provided that the majority of such three or more members shall be independent of any member or members whose order or determination is the subject of review"

—(*Sir Henry Craik*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 15, to leave out Subsection (6)—(*Mr. Long*).—Question proposed, "That the words of the subsection down to and including the word 'order,' in line 2, stand part of the Clause."

Amendment, by leave, *withdrawn*.

Question put, "That Clause 19 stand part of the Bill."—The Committee divided :

Ayes, 30.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Beale.
 Mr. Bryce.
 Mr. Cleland.
 Sir Thomas Glen Coats.
 Mr. Crombie.
 Mr. Dalziel.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Hope.
 Mr. Laidlaw.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Solicitor-General for Scotland.
 Sir Andrew Torrance.

Noes, 15.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Mr. Cochrane.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Major Anstruther-Gray.
 Viscount Helmsley.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Starkey.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Ayes—continued.

Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

[Adjourned till Tuesday next, at eleven o'clock.]

Tuesday, 23rd July, 1907.

MEMBERS PRESENT :

Mr. EUGENE WASON in the Chair.

The Lord Advocate.
 Mr. Ainsworth.
 Sir Frederick Banbury.
 Mr. Barnes.
 Sir Arthur Bignold.
 Mr. Caldwell.
 Mr. Cleland.
 Mr. Cochrane.
 Mr. Cameron Corbett.
 Sir Henry Craik.
 Mr. Crombie.
 Viscount Dalrymple.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 S'r John Dewar.
 Mr. Erskine.
 Mr. Munro Ferguson.
 Mr. Findlay.
 Mr. Leicester Harmsworth.
 Viscount Helmsley.
 Mr. John Henderson.
 Sir John Jardine.
 Colonel Kenyon-Slaney.
 Mr. Laidlaw.
 Mr. Lambton.
 Mr. Lamont.
 Mr. Long.

Mr. Murray Macdonald.
 Mr. M'Callum.
 Major M'Micking.
 Mr. James Mason.
 Mr. Menzies.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Sir Samuel Scott.
 Mr. Sinclair.
 Mr. Abel Smith.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Starkey.
 Mr. Sutherland.
 Mr. Mitchell-Thomson.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Watt.
 Mr. Weir.
 Mr. Dundas White.
 Mr. M'Kinnon Wood.
 Mr. Younger.

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 20.

Amendment proposed, in page 15, line 7, after the word "tenant," to insert the words "or landholder"—(*Mr. Sinclair*).—Question, "That those words be there inserted,"—put, and *agreed to*.

Another Amendment proposed, in page 15, lines 7 and 8, to leave out the words "whether alone or in common with others"—(*Viscount Helmsley*).—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 15, line 9, to leave out the words "or held or to be held therewith"—(*Mr. Mitchell-Thomson*).—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 25, lines 14 and 15, to leave out the words "in respect of land belonging to more than one landlord or"—(*Mr. Weir*).—Question, "That the words proposed to be left out stand part of the Clause,"—put, and *agreed to*.

Another Amendment proposed, to leave out Subsection (a)—(*Mr. Weir*).—Question proposed, "That Subsection (a) stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, to leave out Subsection (b)—(*Mr. Munro Ferguson*)—Question proposed, "That Subsection (b) stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 15, line 20, after the word "land," to insert the words "in a congested area within the meaning of the Act of 1897 the present rent of which exceeds thirty pounds in money, or any land"—(*Sir Samuel Scott*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 12.

Mr. Cochrane.
Sir Henry Craik.
Mr. Munro Ferguson.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.

Noes, 30.

The Lord Advocate.
Mr. Ainsworth.
Sir Arthur Bignold.
Mr. Cleland.
Mr. Crombie.
Mr. Dalziel.
Mr. Arthur Dewar.
Sir John Dewar.

Ayes—*continued.*

Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Weir.

Noes—*continued.*

Mr. Erskine.
Mr. Findlay.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Sir John Jardine.
Mr. Lamont.
Mr. Murray Macdonald.
Major M'Micking.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Mr. Sinclair.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Sir Andrew Torrance.
Mr. Cathcart Wason.
Mr. Watt.
Mr. M'Kinnon Wood.

Another Amendment proposed, in page 15, line 20, to leave out from the first word "the" to the word "or," in line 25 (both inclusive), in order to insert the words "that exceeds the acreage which can conveniently be wrought by one pair of horses, unless the present rent of such land does not exceed fifty pounds in money (but without prejudice to the power of the Land Court, in determining from time to time a fair rent, to fix a rent exceeding fifty pounds)"—(*Mr. John Henderson*)—instead thereof.—Question proposed, "That the words 'the present rent of which within the meaning of this Act exceeds fifty pounds in money' stand part of the Clause."

Amendment, by leave, *withdrawn.*

Another Amendment proposed, in page 15, lines 21 and 22, to leave out the words "unless such land does not exceed fifty acres"—(*Mr. Cochrane*).—Question put, "That the words proposed to be left out stand part of the Clause"—The Committee divided:

Ayes, 24.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Crombie.
Sir John Dewar.
Mr. Erskine.
Mr. Findlay.
Mr. Leicester Harmsworth.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. Menzies.
Mr. Molteno.
Mr. Murray.
Mr. Morton.
Mr. Pirie.

Noes, 16.

Sir Frederick Banbury.
Sir Arthur Bignold.
Mr. Cochrane.
Sir Henry Craik.
Mr. Munro Ferguson.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Younger.

Ayes—continued.

Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Mr. Watt.
 Mr. Dundas White.

Motion made, and Question, "That the Committee do sit till 3.45 this afternoon"
 —(*Mr. Sinclair*)—put, and *agreed to*.

Another Amendment proposed, in page 15, line 26, to leave out from the word "any," to the third word "or" (both inclusive), in order to insert the words:

"Any land being woodland, or being or forming part of any policy or park, or of any pleasure ground, or other land required for the amenity or convenience of any residence or farm steading."—(*Mr. Sinclair*)—instead thereof.—Question, "That the words proposed to be left out stand part of the Clause"—put, and *negatived*.

Question proposed, "That those words be there inserted."

Amendment proposed to the proposed Amendment, after the word "park," to insert the words "or home farm or land laid down in permanent pasture or farms occupied by owners"—(*Mr. Mason*).—Question put, "That those words be there inserted in the proposed Amendment."—The Committee divided:

Ayes, 10.

Sir Frederick Banbury.
 Sir Arthur Bignold.
 Sir Henry Craik.
 Colonel Kenyon-Slaney.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Noes, 27.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Cleland.
 Mr. Crombie.
 Mr. Dalziel.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Munro Ferguson.
 Mr. Leicester Harmsworth.
 Mr. Lambton.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Mr. M'Callum.
 Major M'Micking.
 Mr. Molteno.
 Mr. Murray.
 Mr. Morton.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.

Question, "That the words:

'(c) Any land being woodland, or being or forming part of any policy or park, or of any pleasure ground, or other land required for the amenity or convenience of any residence or farm-steading'

—be there inserted," put, and *agreed to*.

Another Amendment proposed, in page 15, line 27, after the word "being," to insert the word "pleasure"—(*Mr. Weir*).—Question proposed, "That the word 'pleasure' be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 15, line 28, after the word "house," to insert the words "or being cultivated or pastoral land, or partly the one and partly the other, of less annual value for cultivation and pasture than the annual value of the house and buildings thereon for residential purposes"—(*Sir John Dewar*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, to leave out Subsection (e)—(*Mr. Morton*).—Question proposed, "That Subsection (e) stand part of the Clause."

[Adjourned till Thursday next, at 11 o'clock.]

Thursday, 25th July, 1907.

MEMBERS PRESENT :

Mr. EUGENE WASON in the Chair.

The Lord Advocate.	Mr. James Mason.
Mr. Ainsworth.	Mr. Menzies.
Sir Frederick Banbury.	Mr. Molteno.
Mr. Barnes.	Mr. Morton.
Mr. Cleland.	Mr. Murray.
Mr. Cochrane.	Mr. Pirie.
Sir Henry Craik.	Mr. Charles Price.
Mr. Crombie.	Sir Robert Pullar.
Viscount Dalrymple.	Sir Samuel Scott.
Mr. Arthur Dewar.	Mr. Seddon.
Sir John Dewar.	Mr. Sinclair.
Mr. Erskine.	Mr. Smeaton.
Mr. Munro Ferguson.	Mr. Abel Smith.
Mr. Findlay.	Mr. Halley Stewart.
Mr. Gulland.	Mr. Starkey.
Mr. Leicester Harmsworth.	Mr. Sutherland.
Mr. John Henderson.	Mr. Mitchell-Thomson.
Sir John Jardine.	Sir Andrew Torrance.
Colonel Kenyon-Slaney.	Mr. Cathcart Wason.
Mr. Laidlaw.	Mr. Weir.
Mr. Lambton.	Mr. Dundas White.
Mr. Lamont.	Mr. Wilkie.
Mr. Long.	Mr. Williamson.
Mr. Murray Macdonald.	Mr. M'Kinnon Wood.
Mr. M'Callum.	Mr. Younger.
Major M'Micking.	

SMALL LANDHOLDERS (SCOTLAND) BILL.

Clause 20, further considered.

Amendment again proposed, in page 15, line 29, to leave out Subsection (c)—(*Mr. Morton*)—Question put, “That Subsection (c) stand part of the Clause”—The Committee divided :

Ayes, 22.

Mr. Ainsworth.
Mr. Cleland.
Mr. Arthur Dewar.
Sir John Dewar.
Mr. Erskine.
Mr. Findlay.
Mr. Gulland.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Callum.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Murray.
Mr. Charles Price.
Sir Robert Pullar.
Mr. Seddon.
Mr. Sinclair.
Mr. Sutherland.
Mr. Cathcart Wason.
Mr. Dundas White.
Mr. M'Kinnon Wood.

Noes, 18.

Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Munro Ferguson.
Mr. Leicester Harmsworth.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Mr. James Mason.
Mr. Morton.
Mr. Pirie.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Weir.
Mr. Wilkie.
Mr. Younger.

Another Amendment proposed, in page 15, line 29, after the word “or,” to insert the words :

“(f) Any land held and used by a local authority for purposes of public recreation ; or

(g) Any land being or forming part of any market garden ; or ”

—(*Mr. Sinclair*)—Question, “That those words be there inserted,”—put, and *agreed to*.

Another Amendment proposed, in page 15, line 37, after the word “1894,” to insert the words :

“(h) Any land suitable for sylviculture which the Agricultural Commissioners, or the local authorities, or any owner thereof, may desire to be scheduled for such purpose at any time within nineteen years from the passing of this Act with the consent of the owner ”

—(*Mr. Munro Ferguson*).—Question, “That those words be there inserted,”—put, and *negatived*.

Another Amendment proposed, in page 15, line 37, after the word "1894," to insert the words :

"(h) Permanent grass fields in the neighbourhood of towns used for grazing by dairymen, carters, and the like, and for net-spreading and similar purposes"

—(*Sir Henry Craik*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed. in page 15, line 37, after the word "1894," to insert the words :

"(h) Any land forming part of a holding so that sufficient land would not be left for the economic and profitable use of the existing agricultural buildings and equipment of the holding ;

(i) Any land which would be prejudicial to the convenience of other property belonging to, or occupied by, the same owner or tenant, or which would take an undue or inconvenient quantity of land from any one owner or tenant "

—(*Mr. Mitchell-Thomson*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 14.

Sir Frederick Banbury.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Munro Ferguson.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Noes, 29.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Cleland.
Mr. Crombie.
Sir John Dewar.
Mr. Erskine.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Sir John Jardine.
Mr. Lamont.
Mr. M'Callum.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Morton.
Mr. Murray.
Sir Robert Pullar.
Mr. Sinclair.
Mr. Halley Stewart.
Mr. Sutherland.
Sir Andrew Torrance.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.
Mr. M'Kinnon Wood.

Another Amendment proposed, in page 15, line 37, after the word "1894," to insert the words :

"(3) Nothing in the immediately preceding sub-section shall operate to prevent the registration of a new holder or the enlargement of a holding in respect of land comprised in a deer forest or otherwise kept or preserved mainly or exclusively for sporting purposes "

—(*Mr. Sinclair*).—Question proposed, "That those words be there inserted."

Amendment proposed to the proposed Amendment, at the end after the word "purposes," to add the words "as a deer forest or would not act injuriously on the prosperity of the inhabitants generally of the district in which such deer forest is situated—(*Mr. Cochrane*).—Question put, "That those words be there added to the proposed Amendment"—The Committee divided :

Ayes, 13.

Sir Frederick Banbury.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Colonel Kenyon-Slaney.
Mr. Lambton.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Noes, 29.

The Lord Advocate.
Mr. Ainsworth.
Mr. Cleland.
Mr. Crombie.
Sir John Dewar.
Mr. Erskine.
Mr. Munro Ferguson.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Sir John Jardine.
Mr. Lamont.
Mr. M'Callum.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Morton.
Mr. Murray.
Sir Robert Pullar.
Mr. Sinclair.
Mr. Halley Stewart.
Mr. Sutherland.
Sir Andrew Torrance.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.
Mr. M'Kinnon Wood.

Question put, "That those words be there inserted."—The Committee divided :

Ayes, 29.

The Lord Advocate.
Mr. Ainsworth.
Mr. Cleland.
Mr. Crombie.
Sir John Dewar.
Mr. Erskine.
Mr. Munro Ferguson.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Sir John Jardine.
Mr. Lamont.
Mr. M'Callum.
Major M'Micking.
Mr. Menzies.
Mr. Molteno.
Mr. Morton.

Noes, 12.

Sir Frederick Banbury.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Colonel Kenyon-Slaney.
Mr. Long.
Mr. James Mason.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Ayes—continued.

Mr. Murray.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Motion made, and Question, "That the Committee do sit till 4 o'clock this afternoon"—(*Mr. Sinclair*)—put, and *agreed to*.

Another Amendment proposed, at the end of the last inserted Amendment, after the word "purposes," to insert the words :

"(4) Notwithstanding anything contained in sub-section one of this section, the holding of any existing yearly tenant or qualified leaseholder who has become a landholder under the provisions of this Act, shall not for the purposes of the Landholders Acts be deemed to include any lands or heritages at the commencement of this Act forming part of such holding and occupied by a sub-tenant of such existing yearly tenant or qualified leaseholder, whether paying rent or not"

—(*Mr. Sinclair*).—Question, "That those words be there inserted,"—put, and *agreed to*.

Question put, "That Clause 20, as amended, stand part of the Bill."—The Committee divided :

Ayes 31.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Gulland.
 Mr. Leicester Harmsworth.
 Mr. John Henderson.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Sir Andrew Torrance.

Noes, 10.

Sir Frederick Banbury.
 Sir Henry Craik.
 Viscount Dalrymple.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Ayes—continued.

Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Clause 21.

Question put "That Clause 21 stand part of the Bill."—The Committee divided :

Ayes, 29.

The Lord Advocate.
 Mr. Ainsworth.
 Mr. Barnes.
 Mr. Crombie.
 Mr. Arthur Dewar.
 Sir John Dewar.
 Mr. Erskine.
 Mr. Gulland.
 Mr. John Henderson.
 Sir John Jardine.
 Mr. Laidlaw.
 Mr. Lamont.
 Mr. Murray Macdonald.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Seddon.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Wilkie.
 Mr. M'Kinnon Wood.

Noes, 12.

Sir Frederick Banbury.
 Sir Henry Craik.
 Viscount Dalrymple.
 Mr. Munro Ferguson.
 Colonel Kenyon-Slaney.
 Mr. Lambton.
 Mr. Long.
 Mr. James Mason.
 Sir Samuel Scott.
 Mr. Abel Smith.
 Mr. Mitchell-Thomson.
 Mr. Younger.

Clause 22.

Amendment proposed, in page 16, lines 36 and 37, to leave out the words "or would have been held if this Act had not passed"—(*Mr. Lambton*).—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Clause *agreed to*.

Clause 23.

Amendment proposed, in page 17, line 19, to leave out all the words after the word "Commissioners" to the end of the Clause—(*Sir Frederick Banbury*).—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Clause *agreed to*.

Clause 24.

Amendment proposed, in page 17, line 19, to leave out the words "the Crofters Acts or"—(*Mr. Mitchell-Thomson*).—Question, "That the words proposed to be left out stand part of the Clause,"—put, and *negatived*.

Another Amendment made, in page 17, line 21, by leaving out the words "legatee, or assignee," and inserting the words "or legatee," instead thereof.

Another Amendment proposed, in page 17, line 28, after the word "Acts," to insert the words "the expression 'landholder' includes 'joint tenants'"—(*Mr. Weir*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 17, line 37, after the word "thereof," to insert the words "and except in section thirty-two thereof"—(*Mr. Sinclair*).—Question, "That those word be there inserted,"—put, and *agreed to*.

Another Amendment made, in page 17, line 37, after the word "Act," by inserting the words "or the Act."

Clause, as amended, *agreed to*.

Clauses 25 and 26, *agreed to*.

Clause 27.

Amendment proposed, in page 18, lines 12 and 13, to leave out the words "first day of April nineteen hundred and eight," in order to insert the words "twenty-eighth day of May nineteen hundred and nine"—(*Mr. Lambton*).—instead thereof.—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Clause *agreed to*.

Clause 28, *agreed to*.

[Adjourned till Tuesday next at 11 o'clock.]

Tuesday, 30th July, 1907.

MEMBERS PRESENT:

Mr. EUGENE WASON in the Chair.

The Lord Advocate.	Mr. Murray Macdonald.
Mr. Ainsworth.	Mr. M'Callum.
Sir Frederick Banbury.	Mr. M'Crae.
Mr. Barnes.	Major M'Micking.
Mr. Caldwell.	Mr. Menzies.
Mr. Cleland.	Mr. Molteno.
Mr. Cochrane.	Mr. Morton.
Sir Henry Craik.	Mr. Murray.
Mr. Crombie.	Mr. Pirie.
Viscount Dalrymple.	Mr. Charles Price.
Mr. Dalziel.	Sir Robert Pullar.
Mr. Arthur Dewar.	Dr. Rainy.
Sir John Dewar.	Sir Samuel Scott.
The Master of Elibank.	Mr. Seddon.
Mr. Erskine.	Mr. Sinclair.
Mr. Esslemont.	Mr. Abel Smith.
Mr. Munro Ferguson.	Mr. Halley Stewart.
Mr. Findlay.	Mr. Solicitor-General for Scotland.
Major Anstruther-Gray.	Mr. Starkey.
Mr. Gulland.	Mr. Sutherland.
Mr. Leicester Harmsworth.	Mr. Mitchell-Thomson.
Viscount Helmsley.	Sir Andrew Torrance.
Mr. John Henderson.	Captain Waring.
Mr. John Hope.	Mr. Cathcart Wason.
Sir John Jardine.	Mr. Weir.
Colonel Kenyon-Slaney.	Mr. Dundas White.
Mr. Laidlaw.	Mr. Wilkie.
Mr. Lambton.	Mr. Williamson.
Mr. Lamont.	Mr. Younger.
Mr. Long.	

SMALL LANDHOLDERS (SCOTLAND) BILL.

Motion made and Question proposed, "That the Committee do now adjourn"—
(*Colonel Kenyon-Slaney*).

Motion, by leave, *withdrawn*.

New Clause ("Obligations of new holders under Public Health Act") brought up and read the first time as follows :

"Where buildings or other premises within the meaning of The Public Health (Scotland) Act, 1897, have been erected on a holding by or for a new holder, all duties or liabilities imposed on the owner of such premises under any provision relating to the removal or remedy of a nuisance contained in the said Act shall, so long as the landlord receives no rent or other consideration in respect of such premises (and failing agreement with the landlord to the contrary), be transferred to and discharged by the landholder, and the said Act shall be read and construed accordingly "

—(*Mr. Sinclair*).

Clause read a second time.

Amendment proposed, in lines 4 and 5, to leave out the words "relating to the removal or remedy of a nuisance"—(*Mr. Cochrane*).—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in line 6, after the word "such," to insert the words "buildings or other"—(*The Lord Advocate*).—Question, "That those words be there inserted,"—put, and *agreed to*.

Another Amendment proposed, in line 8, after the word "landholder," to insert the words "failing whom the Agricultural Commissioners"—(*Sir Henry Craik*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Clause, as amended, added to the Bill.

Another new Clause ("Use by landlord of water rising on a holding") brought up and read the first time as follows :

"A landlord may, on payment of compensation for any surface damage, use for any estate purpose any springs of water rising on a holding and not required for the use thereof: Provided that any dispute as to the requirements of the holding or the amount of compensation under this section shall be determined by the Land Court; and provided further that nothing herein contained shall be construed as affecting the rights of any persons other than the landlord and the landholder "

—(*Mr. Sinclair*).

Clause read a second time and added to the Bill.

Another new Clause ("Act to apply to Crown Lands") brought up and read the first time as follows :

"This Act shall apply to all Crown Lands"

—(*Mr. Younger*).

Clause read a second time and added to the Bill.

Another new Clause ("Purchase by agreement") brought up and read the first time as follows :

"Where a landlord and a landholder who is cultivating his holding have agreed that the landholder shall become purchaser and owner at such price and upon such terms and conditions as the Land Court may determine, it shall be in the power of the Land Court to make an order fixing such price and declaring the terms and conditions of the purchase on the basis of a fair rent as the Land Court consider just, which order shall be final both upon landlord and landholder"

—(*Mr. Sutherland*).—Question proposed, "That the Clause be read a second time."

Clause, by leave, *withdrawn*.

Another new Clause ("Purchase by agreement") brought up and read the first time as follows :

"When the landlord of a holding has agreed to sell such holding to the landholder in occupation thereof, it shall be lawful for the landlord or the landholder to apply to the Land Court to register the sale of such holding, and the Land Court shall thereafter determine and by order declare such holding to have ceased to be a holding within the meaning of this Act"

—(*Mr. Cochrane*).—Question put, "That the Clause be read a second time."—The Committee divided :

Ayes, 14.

Sir Frederick Banbury.
Mr. Cochrane.
Sir Henry Craik.
Viscount Dalrymple.
Mr. Munro Ferguson.
Major Anstruther-Gray.
Viscount Helmsley.
Mr. Lambton.
Mr. Long.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Noes, 28.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Cleland.
Mr. Crombie.
Mr. Arthur Dewar.
Sir John Dewar.
Mr. Erskine.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. Laidlaw.
Mr. Murray Macdonald.
Mr. M'Crae.
Mr. Menzies.
Mr. Molteno.
Mr. Morton.
Mr. Murray.
Mr. Charles Price.
Sir Robert Pullar.
Mr. Sinclair.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Sir Andrew Torrance.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.

Motion made and Question, "That the Committee do sit till 4 o'clock this afternoon"—(*Mr. Sinclair*)—put, and *agreed to*.

Another new Clause ("Renunciation of tenancy by landholders other than existing crofters") brought up and read the first time as follows :

"Any landholder other than an existing crofter shall be entitled, subject to the provisions of the Act of 1886 and of this Act, to renounce his tenancy as at any term of Whitsunday or Martinmas, being the corresponding term, whether of Whitsunday or Martinmas, at which he entered"

—(*Mr. Mitchell-Thomson*).—Question proposed, "That the Clause be read a second time."

Clause, by leave, *withdrawn*

Another new Clause ("Forfeiture of tenancy on failure of bequest or non-acceptance by legatee") brought up and read the first time as follows :

"Where, owing to the failure of the landholder to bequeath his tenancy or of the legatee to accept the bequest, the right of the tenancy devolves upon the heir-at-law of the landholder the landlord may give notice in writing to such heir requiring him to state whether or not he elects to accept the tenancy, and in case such heir shall not, within six weeks after the receipt of such notice, declare that he elects to accept the tenancy the tenancy shall be forfeited: Provided that if such heir be furth of the United Kingdom the Land Court may grant such extension of the period hereinbefore specified as may seem to them to be reasonable"

—(*Mr. Younger*).—Question proposed, "That the Clause be read a second time."

Clause, by leave, *withdrawn*.

Another new Clause ("Obligation of landholder in possession") brought up and read the first time as follows :

"Notwithstanding any change of landholder by death or otherwise the landholder for the time being in possession of the holding shall be liable in respect of all the obligations of his predecessors in title in respect of the holding, and in case of the determination of the tenancy such landholder shall have the same rights and be subject to the same obligations as if no change of landholder had taken place"

—(*Mr. Younger*).—Question proposed, "That the Clause be read a second time."

Clause, by leave, *withdrawn*.

Another new Clause ("No relief to new holders under 59 and 60 Vic. c. 37") brought up and read the first time as follows :

"Every new holder to whom assistance is provided under section seven hereof shall pay the rates leviable from occupiers in full without the relief provided by The Agricultural Rates, Congested Districts, and Burgh Land Tax Relief (Scotland) Act, 1896, and the provisions of that Act shall not apply to any such new holder"

—(*Sir Henry Craik*).

Question, "That the Clause be read a second time," put, and *negatived*.

Another new Clause ("Penalty on heir or legatee failing to enter on holding after acceptance") brought up and read the first time as follows :

"The heir or legatee of a landholder shall, immediately on his intimating acceptance of the holding, enter upon it and carry on the cultivation thereof in proper season,

and on his failure to do so the landlord may carry on such cultivation and may claim compensation against such heir or legatee for all expenses of cultivation or for seeds sown on or manures applied to the holding, provided that if such heir or legatee fails to enter on the holding within three months after his acceptance thereof, his rights shall cease and determine and the landlord shall be entitled to let the holding to a new tenant, subject to payment of any sum due for improvements on the holding to the family or heirs of the former holder "

—(*Mr. Abel Smith*).—Question proposed, "That the Clause be read a second time."

Clause, by leave, *withdrawn*.

Another new Clause ("Obligation to landholder in respect of drainage") brought up and read the first time as follows :

"Where in the case of a new holding or enlargement of an existing holding the land taken off a larger farm for such new holding contains the outlet of the leader drain of any system of drainage which is partly upon and affects the land which remains to the larger farm, such new holder or, in the case of the enlargement of a holding, such existing holder shall be bound to maintain such outlet and such leader drain in good order, so that the land which remains part of the original large farm shall not be prejudicially affected by his neglect, and in the event of the landholder not keeping such drain and such outlet in good order the landowner may do such work as is necessary and recover the cost from the small landholder "

—(*Mr. Lambton*).—Question proposed, "That the Clause be read a second time."

Clause, by leave, *withdrawn*.

Another new Clause ("Obligation of landholders in respect of tenant's repairs") brought up and read the first time as follows :

"A landholder under the Act shall be bound to carry out all the ordinary tenant's repairs on any buildings belonging to the landlord, including the painting of all outside woodwork once in three years, the pointing of buildings, and the replacement of broken glass or loose slates, or, in the case of thatched roofs, to keep such roofs in good repair, and in the event of failure on the part of the landholder to carry out such repairs, the landlord may, after three months' notice given to the landholder to execute the work, enter on the holding and carry out such repairs, and charge the cost of the same against the landholder.

Any dispute as to the necessity of such repairs shall be decided by an arbiter appointed by the Land Court "

—(*Sir Frederick Banbury*).—Question put, "That the Clause be read a second time."—The Committee divided :

Ayes, 11.

Sir Frederick Banbury.
Mr. Cochrane.
Sir Henry Craik.
Mr. Munro Ferguson.
Viscount Helmsley.
Mr. Lambton.
Mr. Long.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Mitchell-Thomson.
Mr. Younger.

Noes, 33

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Crombie.
Mr. Dalziel.
Sir John Dewar.
Mr. Erskine.
Mr. Esslemont.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Mr. Laidlaw.

Noes—*continued.*

Mr. Lamont.
 Mr. M'Callum.
 Mr. M'Crae.
 Major M'Micking.
 Mr. Molteno.
 Mr. Morton.
 Mr. Murray.
 Mr. Pirie.
 Mr. Charles Price.
 Sir Robert Pullar.
 Mr. Sinclair.
 Mr. Halley Stewart.
 Mr. Solicitor-General for Scotland.
 Mr. Sutherland.
 Sir Andrew Torrance.
 Captain Waring.
 Mr. Cathcart Wason.
 Mr. Weir.
 Mr. Dundas White.
 Mr. Williamson.

Another new Clause ("Application to landholders of Section 3 of 6 Edw. VII. c. 56") brought up and read the first time as follows :

"The provisions of section three of The Agricultural Holdings Act, 1906, shall apply to all landholders as defined by this Act, with the substitution of 'landholder' for 'tenant' where occurring in such section"

—(*Mr. Lambton*).—Question proposed, "That the Clause be read a second time."

Clause, by leave, *withdrawn*.

Another new Clause ("Where teinds not valued holder to be liable for increase of stipend") brought up and read the first time as follows :

"Where the teinds of the lands forming a holding or any part of a holding have not been valued the landholder shall be liable for any increase in stipend that may arise in virtue of improvements made by him on the holding"

—(*Mr. Younger*).—Question proposed, "That the Clause be read a second time."

Clause, by leave, *withdrawn*.

Another new Clause ("Joint tenants excluded from the provisions of the Act") brought up and read the first time as follows :

"Every holding which is held from year to year, or under a lease for a term longer than one year, by more than one person, whether by joint tenancy or otherwise, shall not be a holding within the meaning of this Act; and it shall not be competent for the Land Court to grant registration in respect of a new holding constituted under the provisions of this Act to more than one person, being the new holder thereof"

—(*Mr. Long*).—Question proposed, "That the Clause be read a second time."

Clause, by leave, *withdrawn*.

Another new Clause ("Gifts to new holders not to be by grants of money") brought up and read the first time as follows :

"Where the Agricultural Commissioners are of opinion that with a view to, or as

incidental to, the registration of a new holder or holders, assistance should be provided by way of gift, such assistance shall be provided by the Agricultural Commissioners otherwise than by a grant of money to such new holder or holders: Provided always that a new holder to whom such assistance is provided shall not be entitled, on renunciation of his tenancy or removal from his holding, to compensation in respect of such assistance"

—(*Mr. Cochrane*).—Question put, "That the Clause be read a second time."—The Committee divided:

Ayes, 12.

Sir Frederick Banbury.
Mr. Cochrane.
Sir Henry Craik.
Mr. Munro Ferguson.
Viscount Helmsley.
Mr. Lambton.
Mr. Long.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Mitchell-Thomson.
Mr. Younger.

Noes, 36.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Crombie.
Mr. Dalziel.
Sir John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Sir John Jardine.
Mr. Laidlaw.
Mr. Lamont.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Molteno.
Mr. Morton.
Mr. Murray.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Mr. Seddon.
Mr. Sinclair.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Sir Andrew Torrance.
Captain Waring.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Williamson.

Another new Clause ("Compensation to be payable in respect of damage by entry of Agricultural Commissioners thereon") brought up and read the first time as follows:

"Where the Agricultural Commissioners, under an order issued by the Land Court providing for the constitution of new holdings on any land, enter on such land and carry out works or otherwise as may be necessary to make such order effective, the landlord or tenant shall be entitled to claim compensation in respect of any damage or injury caused to the land or crops or other property by reason of the actings of the Agricultural Commissioners"

—(*Mr. Abel Smith*).—Question proposed, "That the Clause be read a second time."

Clause, by leave, *withdrawn*.

Another new Clause ("Alteration of rent of dwelling-house sub-let") brought up and read the first time as follows :

"When a landholder sub-lets his dwelling-house to holiday visitors, the landlord may apply to the Land Court to alter the rent payable or fixed in respect of the holding, and thereupon the Land Court after hearing the parties, and particularly after taking into consideration the rent received by the landholder in respect of his dwelling-house, may readjust the rent, and pronounce an order accordingly"

—(*Viscount Helmsley*).—Question proposed, "That the Clause be read a second time."

Clause, by leave, *withdrawn*.

Another new Clause ("Landlord may renew lease of farm unless the Agricultural Commissioners give notice that part of such farm will be required") brought up and read the first time as follows :

"The landlord may one year before the expiry of the lease of any farm intimate the fact to the Agricultural Commissioners, and unless the Commissioners, within six months of such intimation, give notice to the landlord that any part of such farm will be required by them for the purposes of this Act, the landlord shall be entitled to re-let the farm to the occupying or any other tenant for such period as may be agreed, provided that the Commissioners shall not during such period be entitled to deal with such farm or any part thereof under this Act"

—(*Mr. Lambton*).—Question proposed, "That the Clause be read a second time."

Clause, by leave, *withdrawn*.

Another new Clause ("Power to Agricultural Commissioners under 60 and 61 Vic. c. 53, to acquire and hold land") brought up and read the first time as follows :

"In addition to the powers conferred by sub-section one of section five of The Congested Districts (Scotland) Act, 1897, the Agricultural Commissioners are hereby authorised to purchase and hold land for the purpose of providing necessary holdings or of enlargement of holdings, and to dispose of such land either by selling it or letting it on such tenure and on such conditions as they may determine"

—(*Sir Samuel Scott*).—Question proposed, "That the Clause be read a second time."

Clause, by leave, *withdrawn*.

Another New Clause ("Amendment of 60 and 61 Vic. c. 53, in respect of security for loan") brought up and read the first time as follows :

"Notwithstanding anything contained in section six of The Congested Districts (Scotland) Act, 1897, any loan which the Commissioners are authorised to make may be granted on such security and on such terms and conditions as the Commissioners may prescribe."

—(*Mr. Cochrane*).—Question proposed, "That the Clause be read a second time."

Clause, by leave, *withdrawn*.

Another New Clause ("Amendment of 60 and 61 Vic. c. 53") brought up and read the first time as follows :

"Sub-section two of section four of The Congested Districts (Scotland) Act, 1897, shall be repealed, and for it substituted :—

The Agricultural Commissioners may give their assistance to individual

crofters or cottars, either by way of loan or by way of sale, and to county councils, district committees, parish councils, committees appointed in terms of the Act of 1891, and other local authorities, either by way of grant or loan or by way of sale or otherwise as they see fit. Such assistance shall be given subject to such conditions and to such provisions for their enforcement or for the case of their violation as may be prescribed by the Commissioners."

—(*Mr. Munro Ferguson*).—Question put, "That the Clause be read a second time."
—The Committee divided:

Ayes, 10.

Sir Frederick Banbury.
Mr. Cochrane.
Mr. Munro Ferguson.
Viscount Helmsley.
Mr. Lambton.
Mr. Long.
Sir Samuel Scott.
Mr. Abel Smith.
Mr. Starkey.
Mr. Younger.

Noes, 40.

The Lord Advocate.
Mr. Ainsworth.
Mr. Barnes.
Mr. Cleland.
Mr. Crombie.
Mr. Dalziel.
Sir John Dewar.
The Master of Elibank.
Mr. Erskine.
Mr. Esslemont.
Mr. Findlay.
Mr. Gulland.
Mr. Leicester Harmsworth.
Mr. John Henderson.
Mr. John Hope.
Sir John Jardine.
Mr. Laidlaw.
Mr. Lamont.
Mr. Murray Macdonald.
Mr. M'Callum.
Mr. M'Crae.
Major M'Micking.
Mr. Molteno.
Mr. Morton.
Mr. Murray.
Mr. Pirie.
Mr. Charles Price.
Sir Robert Pullar.
Dr. Rainy.
Mr. Seddon.
Mr. Sinclair.
Mr. Halley Stewart.
Mr. Solicitor-General for Scotland.
Mr. Sutherland.
Sir Andrew Torrance.
Captain Waring.
Mr. Cathcart Wason.
Mr. Weir.
Mr. Dundas White.
Mr. Wilkie.
Mr. Williamson.

Schedule.

Amendment proposed, in page 19, line 5, at the beginning, to insert the words "In Section two, the words 'for fishermen' and 'connected with the fishing industry'" — (*Viscount Helmsley*).—Question, "That those words be there inserted," —put, and agreed to.

Another Amendment proposed, in page 19, line 10, after the word "more," to insert the words "to the Crofter's Commission"—(*Mr. Sinclair*).—Question, "That those words be there inserted,"—put, and *agreed to*.

Another Amendment made, in page 19, line 25, by leaving out the words "Section thirty."

Schedule, as amended, *agreed to*.

Ordered, To Report the Bill, as amended, to the House.

R E P O R T

FROM THE

STANDING COMMITTEE ON SCOTTISH BILLS

ON THE

SMALL LANDHOLDERS (SCOTLAND) BILL.

WITH THE

PROCEEDINGS OF THE COMMITTEE

*Ordered, by The House of Commons, to be Printed,
30 July, 1907.*

[*Price 1s. 4d.*] .

R E P O R T

FROM

STANDING COMMITTEE B

ON THE

Telegraph (Money) Bill.

WITH THE

PROCEEDINGS OF THE COMMITTEE.

*Ordered, by The House of Commons, to be Printed,
8th July, 1907.*

LONDON:

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1907.

1907.

STANDING COMMITTEE B.

[Monday, 4th March, 1907]:—Mr. Stuart-Wortley *reported* from the Chairman's Panel; That they had agreed to the following Resolution, That any Member of the Chairman's Panel be and he is thereby empowered to ask any other Member of the Chairman's Panel to take his place in case of necessity.

[Wednesday, 6th March, 1907]:—Standing Committees,—*Ordered*, That all Standing Committees have leave to print and circulate with the Votes the Minutes of their Proceedings, and any amended Clauses of Bills committed to them.

[Tuesday, 23rd April, 1907]:—Selection (Standing Committees and Chairmen's Panel),—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had nominated the following Members to serve on the three Standing Committees for the consideration of all Public Bills, not relating exclusively to Scotland, which may be committed to a Standing Committee.

STANDING COMMITTEE B

Sir John Baker.
 Captain Balfour.
 Mr. Barnard.
 Mr. Bridgeman.
 Mr. Bright.
 Mr. Burns.
 Mr. Butcher.
 Mr. Byles.
 Viscount Castlereagh.
 Lord Robert Cecil.
 Sir Francis Channing.
 Mr. Cleland.
 Mr. Clynes.
 Major Coates.
 Mr. Cochrane.
 Dr. Cooper.
 Sir Edwin Cornwall.
 Sir Henry Cotton.
 Mr. Courthope.
 Mr. Vaughan-Davies.
 Mr. Evans.
 Mr. Ferens.
 Mr. Flynn.
 Mr. Haddock.
 Mr. George Hardy.
 Mr. Harwood.
 Mr. James Haslam.
 Mr. Hazleton.
 Colonel Ivor Herbert.
 Mr. Higham.
 Mr. Hooper.
 Mr. Hutton.
 Mr. William Jones.

Mr. Kennedy.
 Mr. Kettle.
 Sir Henry Kimber.
 Mr. Lane-Fox.
 Sir Joseph Leese.
 Sir Francis Lowe.
 Dr. Macnamara.
 Mr. Massie.
 Mr. Meehan.
 Mr. Mond.
 Mr. Mooney.
 Mr. Murray.
 Mr. Nannetti.
 Mr. Nicholls.
 Mr. Nolan.
 Mr. Parker.
 Mr. Paulton.
 Sir Francis Powell.
 Mr. Charles Price.
 Mr. Rainy.
 Mr. Richardson.
 Mr. John Robertson.
 Mr. Rogers.
 Mr. Solicitor-General.
 Mr. Soares.
 Mr. Austin Taylor.
 Mr. David Alfred Thomas.
 Mr. Walsh.
 Mr. Walton.
 Sir Thomas Whittaker.
 Mr. Wolff.
 Mr. Wyndham.
 Mr. Yoxall.

[Tuesday, 14th May, 1907]:—Standing Committees (Chairman's Panel),—Mr. Stuart-Wortley *reported* from the Chairman's Panel; That they had appointed Sir William Holland to act as Chairman of Standing Committee A, in the place of Sir Thomas Esmonde; and Sir David Brynmor Jones to act as Chairman of Standing Committee B, in the place of Mr. J. W. Wilson.

[Tuesday, 28th May, 1907]:—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had added the following Member to Standing Committee B: Mr. Henniker Heaton.

[Friday, 28th June, 1907]:—Telegraph (Money) Bill,—Order read, for resuming Adjourned Debate on Amendment to Question [21st June], "That the Bill be now read a second time:—"

Which Amendment was, to leave out from the word "That," to the end of the Question, and add the words "it is undesirable to authorise further capital expenditure upon telegraphs or

telephones until a full statement has been presented to Parliament showing the financial results of the past working of the Post Office telegraphs and telephones judged from the standpoint of an ordinary commercial undertaking,"—(*Mr. Harold Cox*,)—instead thereof:—

Question again proposed, "That the words proposed to be left out stand part of the Question:"—*Debate resumed*:—Amendment, by leave, *withdrawn*.

Main Question put, and *agreed to*.

Bill read a second time, and *committed to a Standing Committee*.

[*Monday, 1st July, 1907*]:—

DISTRIBUTION BY MR. SPEAKER, PURSUANT TO STANDING ORDER 47,
OF BILLS COMMITTED TO A STANDING COMMITTEE.

Name of Bill.	Standing Committee.
Telegraph (Money) Bill	B.

[*Tuesday, 2nd July, 1907*,]:—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Members from Standing Committee B (in respect of the Telegraph (Money) Bill and of the Evidence (Colonial Statutes) Bill): Mr. Burns, Dr. Macnamara, and Mr. Solicitor-General; and had appointed in substitution (in respect of the Telegraph (Money) Bill and of the Evidence (Colonial Statutes) Bill): Mr. Buxton, Mr. Runciman, and Mr. Churchill.

Sir William Brampton Gurdon further *reported* from the Committee; That they had added to Standing Committee B the following fourteen Members (in respect of the Telegraph (Money) Bill and of the Evidence (Colonial Statutes) Bill):—Mr. William Redmond, Mr. Smyth, Mr. Gibbs, Mr. Austen Chamberlain, Mr. Meysey-Thompson, Mr. John Rutherford, Mr. Steadman, Mr. Hamar Greenwood, Mr. Lyulph Stanley, Mr. Harold Cox, Mr. Chiozza Money, Mr. Marnham, Mr. Bennett, and Sir Frank Edwards.

[*Friday, 5th July, 1907*]:—Selection (Standing Committees),—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee B (in respect of the Telegraph (Money) Bill): Mr. Massie; and had appointed in substitution (in respect of the Telegraph (Money) Bill): Sir John Benn.

Sir William Brampton Gurdon further *reported* from the Committee; That they had added to Standing Committee B the following Member (in respect of the Telegraph (Money) Bill): Mr. Wardle.

REPORT.

STANDING COMMITTEE **B**, to whom the TELEGRAPH (MONEY) BILL was referred;
—Have gone through the Bill and made Amendments thereunto.

8th July, 1907.

STANDING COMMITTEE B.

Monday, 8th July, 1907.

MEMBERS PRESENT :

Sir DAVID BRYNMOR JONES in the Chair.

Mr. Bennett.
Mr. Sydney Buxton.
Mr. Byles.
Lord Robert Cecil.
Mr. Churchill.
Mr. Cleland.
Sir Edwin Cornwall.
Mr. Harold Cox.
Mr. Vaughan-Davies.
Sir Ivor Herbert.
Mr. Marnham.
Mr. Meehan.

Mr. Mond.
Mr. Mooney.
Mr. Paulton.
Sir Francis Powell.
Mr. John Robertson.
Mr. John Rutherford.
Mr. Lyulph Stanley.
Mr. Steadman.
Mr. Austin Taylor.
Mr. Walton.
Mr. Wardle.

TELEGRAPH MONEY BILL.

Clause 1.

An Amendment made, in page 1, line 5, after the word "may," by inserting the words "with a view to the development of that part of the telegraphic system of the United Kingdom which is called the telephonic system"—(*Mr. Sidney Buxton*).

Another Amendment proposed, in page 1, line 8, to leave out the word "six," in order to insert the word "three"—(*Mr. Harold Cox*)—instead thereof.—Question put, "That the word 'six' stand part of the Clause."—The Committee divided :

Ayes, 19.

Mr. Sydney Buxton.
Mr. Churchill.
Mr. Cleland.
Sir Edwin Cornwall.
Mr. Vaughan-Davies.
Sir Ivor Herbert.
Mr. Marnham.
Mr. Meehan.
Mr. Mond.
Mr. Mooney.
Mr. Paulton.
Sir Francis Powell.

Noes, 3.

Mr. Byles.
Lord Robert Cecil.
Mr. Harold Cox.

Ayes—*continued.*

Mr. John Robertson.
Mr. John Rutherford.
Mr. Lyulph Stanley.
Mr. Steadman.
Mr. Austin Taylor.
Mr. Walton.
Mr. Wardle.

Another Amendment made, in page 1, lines 12 and 13, by leaving out the words “relate to the mode in which money may be raised,” and inserting the words “authorise the Treasury to borrow the sums required by means of terminable annuities and make provision with respect to those annuities”—(*Mr. Sidney Buxton*)—instead thereof.

Clause, as amended, *agreed to.*

Clause 2, *agreed to.*

Ordered, To Report the Bill, as amended, to the House.

R E P O R T

FROM THE

SELECT COMMITTEE

ON

**UNITED METHODIST CHURCH
BILL [H.L.],**

WITH THE

PROCEEDINGS OF THE COMMITTEE.

*Ordered, by the House of Commons, to be Printed,
4 July 1907.*

[*Price 1d.*]

241.

Under 10s.

REPORT

FROM THE

SELECT COMMITTEE

ON

UNITED METHODIST CHURCH BILL [H.L.];

TOGETHER WITH THE

PROCEEDINGS OF THE COMMITTEE,

AND

MINUTES OF EVIDENCE.

*Ordered, by the House of Commons, to be Printed,
26 July 1907.*

L O N D O N :

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1907.

ORDER OF REFERENCE.

[13th May 1907.]—United Methodist Church Bill read the first time; and referred to the Examiners of Petitions for Private Bills.

[23rd May 1907.]—Private Bills [*Lords*] (Standing Orders not previously inquired into complied with).—Mr. Speaker laid upon the Table Report from one of the Examiners of Petitions for Private Bills, That, in the case of the following Bill, originating in the Lords, and referred on the First Reading thereof, the Standing Orders not previously inquired into, and which are applicable thereto, have been complied with, viz. :

United Methodist Church Bill.

Ordered, That the Bill be read a second time.

[12th June 1907.]—United Methodist Church Bill (*by Order*),—read a second time, and committed.

[13th June 1907.] United Methodist Church Bill,—Order for Committal [12th June] read and discharged.

Ordered, That the Bill be committed to a Select Committee of Nine Members, Five to be nominated by the House and Four by the Committee of Selection.

Ordered, That all Petitions against the Bill presented Five clear days before the meeting of the Committee be referred to the Committee; that the Petitioners praying to be heard by themselves, their Counsel, or Agents be heard against the Bill, and Counsel be heard in support of the Bill.

Ordered, That the Committee have power to send for Persons, Papers, and Records.

Ordered, That Five be the quorum.—(*The Deputy Chairman.*)

[20th June 1907.]—United Methodist Church Bill,—Mr. Essex, Mr. Ferens, Mr. Gwynn, Sir John Randles, and Mr. Luke White *nominated* Members of the Select Committee on the United Methodist Church Bill.—(*Mr. Whiteley.*)

The following Members have been nominated Members of the Select Committee on the United Methodist Church Bill :—Mr. Compton Rickett, Mr. Arthur Henderson, Mr. George White, Sir George Doughty.

[June 26th 1907.]—Select Committee on United Methodist Church Bill :

Mr. Crompton Rickett is discharged.

Mr. Massie is added.

[June 27th 1907.]—Select Committee on United Methodist Church Bill :

Mr. Massie is discharged.

Mr. Hay Morgan is added.

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MINUTES OF EVIDENCE	1

R E P O R T .

Mr. LUKE WHITE reported from the SELECT COMMITTEE on the UNITED METHODIST CHURCH BILL ;---That they had examined the allegations contained in the Preamble of the Bill, and verbally amended the same, and found the same as amended to be true, and had gone through the Bill and made Amendments thereunto.

26 July 1907.

PROCEEDINGS OF THE COMMITTEE

Tuesday, June 25th 1907.

MEMBERS PRESENT :

Mr. Essex.
Mr. Ferens.
Mr. Gwynn.
Mr. Arthur Henderson.

Sir John Randles.
Mr. Compton Rickett.
Mr. Luke White.

Mr. Luke White was called to the Chair.

The Committee deliberated.

[Adjourned till Thursday, July 4th, at 11.30 o'clock.]

Thursday, 4th July 1907.

MEMBERS PRESENT :

Mr. LUKE WHITE in the Chair.

Sir G. Doughty.
Mr. Essex.
Mr. Ferens.
Mr. Gwynn.

Mr. Hay Morgan.
Sir J. Randles.
Mr. George White.

The United Methodist Church Bill.

Counsel: Mr. F. W. Pember.

Agents: Waterhouse and Co.

Preamble read the first time.

Mr. *F. W. Pember* was heard in support of the Preamble of the Bill, and called evidence.

Mr. *Ebenezer Cornish*, sworn and examined.

Mr. *Edward Roaden*, sworn and examined.

Mr. *George Packer*, sworn and examined.

Mr. *John Luke*, sworn and examined.

Mr. *James Duckworth*, a Member of the House, sworn and examined.

Sir *Charles Thomas Skelton*, who claimed to affirm, affirmed, and was examined.

Mr. *George Pearse Dymond*, sworn and examined.

The Committee deliberated.

Preamble verbally amended, and read a second time.

Question, That the Preamble, as amended, is proved ; put, and *agreed to*.

Clause 1, *agreed to*.

Clause 2, amended, and *agreed to*.

Clauses 3-6, *agreed to*.

Clause 7 amended, and *agreed to*.

Clauses 8-14, *agreed to*.

Clause 15, amended, and *agreed to*.

Clauses 16-27, *agreed to*.

Clause 28, amended, and *agreed to*.

Clause 29, *agreed to*.

Clause 30, amended, and *agreed to*.

Clause 31, *agreed to*.

New Clause 17A [Receipt by Treasurer or Secretary a discharge in certain cases] brought up, read a first and second time, and *agreed to*.

Schedule, *agreed to*.

Ordered, to report with Minutes of Proceedings.

PROCEEDINGS OF THE COMMITTEE

Tuesday, June 25th 1907.

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Mr. Essex.
Mr. Ferens.
Mr. Gwynn.
Mr. Arthur Henderson.

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The Committee deliberated.

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Mr. George White.

The United Methodist Church Bill.

Counsel: Mr. F. W. Pember.

Agents: Waterhouse and Co.

Preamble read the first time.

Mr. F. W. Pember was heard in support of the Preamble of the Bill, and called evidence.

Mr. Ebenezer Cornish, sworn and examined.

Mr. Edward Boaden, sworn and examined.

Mr. George Packer, sworn and examined.

Mr. John Luke, sworn and examined.

Mr. James Duckworth, a Member of the House, sworn and examined.

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Clauses 16-27, *agreed to*.

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New Clause 17A [Receipt by Treasurer or Secretary a discharge in certain cases] brought up, read a first and second time, and *agreed to*.

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Ordered, to report with Minutes of Proceedings.

MINUTES OF EVIDENCE.

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MINUTES OF EVIDENCE.

Thursday, 4th July 1907.

MEMBERS PRESENT :

Sir George Doughty.
Mr. Essex.
Mr. Ferens.
Mr. Gwynn.

Mr. Hay Morgan.
Sir John Randles.
Mr. George White.
Mr. Luke White.

MR. LUKE WHITE IN THE CHAIR.

Mr. F. W. Pember appeared as Counsel for the Promoters of the Bill.

Messrs. *Waterhouse and Company* appeared as Agents.

Mr. E. Beaumont appeared as Counsel representing His Majesty's Attorney-General.

Mr. Pember.] I have the honour, Sir, to appear to promote this Bill before you. It is a Bill promoted by three dissenting bodies known as the Methodist New Connexion, the Bible Christians, and the United Methodist Free Churches.

Now, the Bill, Sir, has already passed the House of Lords. It is a Bill of a character differing from those which ordinarily come before committees whose business it is to investigate private legislation, and I venture to think the Committee will feel that it is a Bill of a character of considerable interest.

Now there is no opposition to the Bill, but the Bill, as the Committee are aware, has been specially referred to them and therefore I take it that they will desire me to deal with it somewhat more fully than Bills are dealt with which come before an unopposed committee.

Now, Sir, these three bodies are voluntary Unincorporated Associations of Christian people who are united on a basis of agreement in religious belief, in principles of worship, and of church government, and organisation; and they took their rise, if I may shortly state the history of them, in this way: Two of them were originally secessions from the original Wesleyan Body. Those two were the Methodist New Connexion and the United Methodist Free Churches. The third, the Bible Christians, stands, in one respect, on a somewhat different footing, and it is not so much to be described properly as a "secession" as an "off-shoot." I mention that because I understand that at the birth of the Bible Christians Society, no ministers or brethren went over from the Old Connexion, but the Bible Christians, I am instructed, broke entirely new ground. I do not know that it is a matter of very special importance, but I think it is as well to state it.

Now, if the Committee will allow me, I will just shortly state the early history of these

three bodies. Perhaps, Sir, I should call the Committee's attention to the short statement of the objects of the Bill which appears in its title. It is entitled "An Act to authorise the union of the Methodist New Connexion the Bible Christians and the United Methodist Free Churches under the name of 'The United Methodist Church' to deal with real and personal property belonging to the said churches or denominations to provide for the vesting of the said property in trust for the United Church so formed and for the assimilation of the trusts thereof and for other purposes." Well, Sir, that somewhat long title, I think, gives you, in a definite and compendious form, a conspectus of the objects of the Bill.

Now, if I may ask you to take the Bill and kindly look at the Preamble you will see that the Methodist New Connexion dates from about the year 1797, when a body of persons formed themselves into a church under that name and they declared their Constitution "by a Deed Poll dated the 8th day of June 1846 and enrolled in the High Court of Chancery on the 3rd day of September in the same year."

Now, Sir, I do not know whether you have copies of that deed poll before you; I think possibly some copies had better be handed in to you, but for the moment I need only state, I think, that in the case of the Methodist New Connexion the deed poll contains a statement of their doctrines, and it is also provided in the deed poll that there shall be no power to change the doctrines. There is also a somewhat curious provision in the deed. I should say that the deed provides for the vesting, and that the government of the body is vested—as I think is the case in nearly all these nonconforming bodies—in an annual conference or assembly, and the deed further provides that in the event of that annual conference or assembly ceasing to

A

meet,

4 July 1907.

meet, then the property which is held upon trusts, for chapels and otherwise—for purposes of the society, shall in effect be liable to be applied by the trustees of that property in any way which they may think fit for the purposes of the advancement of religion. I think, perhaps, I might just call your attention to the language of the clause. It says in the 29th clause of the deed that “when-ever it shall happen that the guardian representatives of the connexion shall be reduced to the number of six, and continue so reduced for the space of three years or for three yearly assemblies of conference successively, or whenever there shall be no conference held as hereinbefore stated for three successive years, or the conference shall entirely fail to supply the circuits in the New Connexion with ministers or preachers, then and in any of the said events the conference of the Methodists of the New Connexion shall cease and become extinct; and all the aforesaid powers, privileges, and advantages” (those are the foregoing provisions of the deed; I see, Sir, you have a copy) “shall cease and become void, and all chapels and premises which now are or hereafter may be settled, given, or conveyed upon trust for or for the objects of the said connexion shall vest in and be respectively held by the trustees or trustee thereof for the time being and their successors for ever, on such trusts and for such purposes as the societies for whom they hold such chapels shall appoint.” “The societies” there, I take it, means the congregation attending the particular chapel. Well, Sir, that provision, of course, would render it impossible for that body to amalgamate with any other church without the assistance of Parliament—a Bill would be necessary; because in the event of the bodies amalgamating, of course the amalgamated body would be governed by a conference of its own. The conference of the Methodist New Connexion would cease to meet, and consequently the trust property would go over as provided in that section.

Sir George Doughty.] Could you tell us where the clause is that deals with the power to alter or otherwise adopt their doctrines?

Mr. Pember.] Certainly, Sir. I think you will find that in clause 20. “The preachers so admitted on trial as aforesaid, or into full connexion, shall not preach or teach any doctrine contrary to or at variance with the doctrines or articles of faith and religious ordinances, which have been from the first and are now believed, taught, and observed, by the said Methodist New Connexion, and which are herein contained or hereinbefore set forth;” and the doctrines, Sir, are set forth in the very first enacting part, so to speak, of the deed poll, at page 14.

Sir George Doughty.] Page 14?

Mr. Pember.] Yes. Now, so much for the origin of the Methodist New Connexion. Then in 1815 certain persons united together and became the “Bible Christians,” and they declared their constitution “by a certain deed poll, dated the 8th day of August 1831, and enrolled in the High Court of Chancery on the 15th day of May 1832. Now, that deed poll foundation contains a similar provision—which I do not

think I need read to you at length—which provides for the case of the conference ceasing to meet; and then in a somewhat similar way: “the trustees are to appoint a ‘person or persons, to preach and expound God’s Holy Word therein, and to have the use and enjoyment thereof, for such time and in such manner as to them shall seem proper’”; so that there again it would be necessary in the event of amalgamation to proceed by way of a Bill in order to prevent the operation of that clause being brought into play by the ceasing of the conference to meet. That is clause 24, page 157, at the end of the book.

Now, I ought to call your attention to one other point on the deed poll of the Bible Christians, and that is this, that that deed poll contains no declarations of doctrines whatever; but if you look, Sir, at the 18th clause you will see it is provided that “the conference shall and may make such rules and regulations for the management of the affairs of the said Society of Bible Christians as to it may appear fit or necessary.” Then it goes on as to the appointment of preachers who are “preachers and expounders of God’s Holy Word, under the care and direction of the said conference, which rules, regulations, and appointments, with the duration of the same, with the name of every such person so admitted into connexion, or upon trial, as aforesaid, with the time and degrees of admission, shall be entered in the journals or minutes of the conference.” So that that conference had powers to make rules and regulations apparently, a perfectly general power. Well, shortly after the foundation of the Bible Christians the congress did prepare (I think it was in 1819—you will see a reference to it, I think, on page 159) a list of the annual conferences. You will see the first took place at Baddash, near Launceston, and there there is a reference to “a synopsis of doctrines received and taught.” Now the doctrines, as a matter of fact, are put into shape in the form of a rule. If you turn to page 67 in this book—which you see is a (“Digest of rules and regulations”)—you find a summary of doctrines put in the form of a rule; it is the first chapter, “Part II.” of the rules, and it is section 56. Now, Sir, it was put then that the Bible Christians must have power to restate their doctrines and to alter them from time to time; and that has been always the understanding of the Bible Christian community.

Now the third body arose, as stated in the Preamble, by a secession from the Wesleyan Methodist Connexion who, with other persons, formed themselves into a connexion of churches in the year 1836, and they, first of all, took the title of “The Wesleyan Methodist Association,” and their constitution was declared by another “deed poll, dated the 18th day of August 1840, and enrolled in the High Court of Chancery on the 15th day of February 1841.” Then they were subsequently joined, in 1857, by another body of persons, who were known as “Wesleyan Methodist Reformers.” I am not sure whether that was exactly their name; but it was a somewhat similar name to that, and the United Body or Association thereupon took the appropriate name of “The United Methodist Free Churches.” Then they subsequently, as is stated in the

Preamble,

4 July 1907.

Preamble, made certain alterations in the deed poll, with which I do not think I need trouble you, Sir.

Now, with regard to the deed poll, that contained a similar provision providing for the dealing with the property in the event of the extinction of the conference, I think, Sir, you have got in your hand a document called "The Constitution of the United Methodist Free Churches as embodied in their foundation deeds."

Now, if you look at the preface you will see what that document is: "In order to render the combined effect of the three deeds intelligible to all, the following document is published, which, while omitting formal parts, gives all the provisions of the constitution of the United Methodist Free Churches which are now in force"; so that you might say it is analagous to a consolidation Act; it gives you exactly what is in force as the domestic law of this Society—this Church—at the moment when it was published, and I think there has been no alteration since. There you will find (on the last page) a provision as to under what circumstances the connexion were to become extinct and to whom the connexional property would then lapse. That is very much similar to the two provisions to which I called your attention in the case of the other two churches. That again would, of course, necessitate a Bill in order to enable this church to amalgamate with any other church. There again, in the case of this church too, if you look at page 13 you find this proviso: "That the itinerant preachers, missionaries, and non-itinerant (usually called local) preachers, and every other person whomsoever, who may preach or expound God's Holy Word, or perform any of the ordinances or services of religious worship in any of the chapels, meeting houses, or other places of worship of the said United Methodist Free Churches, shall be of good moral character, and shall not preach or teach any doctrine contrary to, or at variance with, the leading doctrines or articles of faith now believed and taught by the said United Methodist Free Churches, that is to say"—and then follows a statement of the doctrines; so that there again they could not change their doctrines. There is one more provision I think, Sir, to which I ought to refer you; if you look at the bottom of page 5 of this document you will find "That circuits, societies, or churches as aforesaid, comprised within the said United Methodist Free Churches, approving of and consenting to receive itinerant preachers, appointed by and under the direction of the said annual assembly, and contributing to the connexional funds of the said United Methodist Free Churches, have, and hereafter (during their continuance in connection with the said churches), shall have the right and authority annually to elect and send representatives, or a representative to the said annual assembly, therein to sit, deliberate, speak and vote on all matters and questions within the jurisdiction of that assembly;" and on page 17 you will find that clause 10 prescribes what alterations may be made in the constitution of the assembly. Then there is a proviso on that, that certain principles are not voidable. One of those is this (page 19): "Or whereby the right of freely electing and sending representatives annually as aforesaid, may

be destroyed or impeded; or whereby itinerant, non-itinerant (usually called) local preachers, or other official or private members of the said United Methodist Free Churches may be precluded from being elected and sent as representatives." Well, Sir, that proviso was intended to secure the practice which the United Methodist Free Churches resolved on, that there should be absolute freedom to the districts in electing members to their conferences. It was not proposed to provide that there should be any fixed proportion, whether of laymen or of ministers. The idea was, as a matter of fact, that by that provision they would secure a lay conference. I am told, as a matter of fact, that the result has been to secure a conference largely composed of ministers. I am also told that it has worked extremely well; still, the intention of the founder, as a matter of fact, has not had the result which was expected; and I should say that in the other two churches—the Methodist New Connexion and the Bible Christians—provisions are made whereby the number of ministers and laymen in the conference shall be equal; and it is proposed that in the constitution of the intended church—the intended United Methodist Church, if Parliament should see fit in its wisdom to pass the Bill—to re-enact that provision that ministers and laymen shall be equal in numbers in the Conference. Well, having regard to that proviso in the United Methodist Free Churches constitution—the existence of that proviso saying that the freedom to elect shall not be restricted—the Promoters are advised that that also would be a point which would necessitate procedure by a Bill, if the United Methodist Free Churches were to form an amalgamation with any other body.

Now, these bodies, as I daresay members of the Committee know, are constituted in this way: the individual churches are arranged in circuits, and the circuits are grouped in districts and the districts send representatives to the central body or conference, which is the governing body of the communion. Now, the doctrinal tenets of the three communions are substantially identical; I have compared them, as well as I am able, and it seems to me there is little doubt about that, though there are the usual variations in language which you would expect in three documents drafted for the same purpose by three several persons; substantially they appear, to my imperfect knowledge, to be the same; but the witnesses will tell you that that is the understanding of the three free communions; and, of course, the three statements are before the Committee, and they can satisfy themselves as to that. I do not suppose the Committee will desire me to go through those doctrinal statements in detail.

Sir John Randles.] Excuse me. Do you mean the doctrinal statements that have been adopted in this —

Mr. Pember.] I mean, Sir, the doctrinal statements contained in those three documents; they are identical. I may say at once that it is not proposed to alter them. In the proposed new constitution it is intended to include a statement of doctrine, which practically is identical with those in all essential points.

4 July 1907.

Sir John Randles.] Do you put that in?

Mr. Pember.] I put those three documents in

Sir John Randles.] I mean the new statement?

Mr. Pember.] No, Sir, I do not propose to at present, because it is still *in fieri*, and if the Bill is passed, as I think you will see when I come to explain the proposals of the Bill, you will see that the Bill reserves the framing of the constitution to the united conference which is to decide upon the union.

Sir John Randles.] I thought they had published a statement?

Mr. Pember.] I do not know whether that is so, Sir; it is not within my knowledge that it is so. I am told, Sir, that a draft has been published.

Sir John Randles.] I have seen it in the Press; that is all.

Mr. Pember.] I am told that is so, Sir; I have not seen it.

Chairman.] One of the provisions of the Bill is that the new deed poll should be settled after the passing of the Bill.

Mr. Pember.] Yes, Sir, that is the provision; and the statement which has appeared in the papers to which the honourable member refers is, of course, the draft statement which is at present included in the draft deed poll foundation, which is at present being prepared by the committee which has charge of the promotion of the Bill.

Sir John Randles.] It has not been before the conferences, I understand, from what you say now.

Mr. Pember.] No, Sir, I do not think it has. I am not sure whether the conference of the United Free Churches have had it before them. The Methodist New Connexion conference has had it before them.

Sir John Randles.] But not the others?

Mr. Pember.] Not the others. Of course, Sir, the conferences have generally considered it; but I do not know that those two—other than the New Connexion—have had it before them; I will make inquiries as to that.

Chairman.] But whatever has been done, has simply been done informally, and will have to come up hereafter.

Mr. Pember.] Yes.

Sir George Doughty.] Ought not the statement of doctrine to be embodied in or scheduled to the Bill if you are going to provide for interfering with the doctrines of the Free Churches?

Mr. Pember.] With great respect, Sir, I should submit not.

Chairman.] One of the main features of the Bill is that the deed poll is not to be settled under the Bill, but to be settled by the "United" Church—that is established by the Bill.

Mr. Pember.] That is so, Sir. We felt we could not ask Parliament to undertake to settle the very long and detailed provisions which will regulate our domestic organisation and government nor could we ask Parliament to undertake to frame what I may call a confession of faith for us. That is the way in which the Bill is framed.

Mr. George White.] As I understand, you take exception to Parliament settling your doctrinal basis?

Mr. Pember.] I think, if I may put it very respectfully, that would be the feeling of these denominations. I think they would feel that to put forward their denominational basis and ask Parliament to settle it would be, really, a violation of Free Church principles.

Sir George Doughty.] You are asking Parliament to set aside the doctrines stated in these deed polls.

Mr. Pember.] No, Sir, with submission.

Chairman.] No.

Mr. Pember.] No, Sir; we are asking Parliament to empower us to frame our doctrinal tenets as a matter of fact, when they come to be embodied. The doctrinal tenets that we shall put before the united conference will be a substantial re-enactment of the doctrines at present stated, subject to a mere question of language; they will be substantially a re-enacting and re-expressing of the identical doctrines which are now held by these three bodies.

Sir John Randles.] I quite agree with you that you would never ask Parliament to define your doctrines for you or to deal with them, but it would be a different thing if you presented a statement of your doctrines and asked Parliament to embody them—say in a Schedule, as my friend here suggests, to the Bill; Parliament would not be interfering with your doctrines in any way.

Chairman.] Parliament would be interfering to this extent: If Parliament once passed the Bill with those doctrines inserted it would be necessary, if ever any alteration had to be made, that the united church should again come before Parliament in order to make any alteration whatever.

Mr. Pember.] That is precisely the point.

Sir John Randles.] That is exactly the point.

Mr. Pember.] We might find ourselves in exactly the position in which the Scottish churches were.

Mr. Essex.] By reason of a principle which Parliament would have established.

Mr. Pember.] With great respect I say so. We should be asking Parliamentary sanction to our doctrines and to confer a Parliamentary definition on our doctrines.

Sir George Doughty.] What I understand is that you are going to ask Parliament then to sanction your constitution without stating what the constitution consists of.

Mr.

4 July 1907.

Mr. *Pember.*] I should not put it quite in that way. We are going to ask Parliament to sanction our amalgamation and to confer upon us power to frame a fitting constitution for the new proposed amalgamated body by a foundation deed poll, including amongst the provisions of that foundation deed poll a statement of our doctrines, as they exist at the present moment, which are identical in the case of the three bodies, and which my witnesses will tell you there is no intention whatever of altering at the present moment. And of course, Sir, I should point out that we provide in Clause 7 of the Bill that the resolution adopting the deed poll foundation is to be carried by a three-fourths majority of the representatives of each of the three churches voting, first separately and then together, so that we provide for a substantial majority in favour of this deed poll before it can be adopted.

Chairman.] And hereafter, if any alteration is made, it must be made by a three-fourths majority at a conference of the united churches and confirmed by the same majority at a subsequent conference.

Mr. *Pember.*] In a subsequent conference, and before even the first of these resolutions can be passed, we propose that the question of the alteration or amendment shall be submitted to all the districts, the circuit, or district meetings, so that they may thoroughly consider it.

Sir John Randles.] Is that in the Bill?

Mr. *Pember.*] That will be a provision of our deed poll, Sir.

Sir John Randles.] But it is not in the Bill.

Mr. *Pember.*] No, it is not in the Bill. Now, Sir, I think I ought perhaps, if I may, just to give you very shortly one or two statistics as to these three denominations. Now, the numbers of members of the three denominations are as follows:—I ought to mention, Sir, by the way, that each of these denominations, as is usually the case with nonconforming bodies, has a model deed or a deed of reference, by reference to which the trusts of the chapels are declared. That is a matter, I have no doubt, with which members of the Committee are familiar, and the trusts of those deeds are similar in all essential respects.

Now, the numbers of the members of these three denominations, taking the figures of 1906, are:—In the Methodist New Connexion, 42,317; in the Bible Christians, 32,317; and in the United Methodist Free Churches, 85,603; and there are also, of course, the members in foreign missions. Those three figures mount up to a total of a little over 160,000. Now the invested funds of the denominations, taking the latest available figures of this year, are approximately as follows (I should say, that in the figures I am going to give you the superannuation funds of these bodies are reckoned separately, and in addition to the general funds):—The Methodist New Connexion has a general fund of 9,865*l.*—I am told, Sir, that the law stationer has left out a cypher, it should be 98,650*l.*—and a superannuation fund of 36,595*l.*; the Bible Christians have general funds of 23,386*l.*, and a superannuation fund of 10,890*l.*; and the United

Methodist Free Churches have a fund generally of 107,900*l.*, and a superannuation fund of 57,000*l.* Now the total of the general funds is 229,940*l.*, and the total of the superannuation funds is 104,485*l.*

Then, of course, there are a number of chapels, schools, and colleges. These, on the figures of 1906, are:—In the Methodist New Connexion, 457 chapels; the Bible Christians, 644; and the United Methodist Free Church, 1,331; making a total of 2,432. The colleges and secondary schools, the Methodist New Connexions, have one, the Bible Christians, two, and the United Methodist Free Churches, two more, making five altogether. Of course, Sir, you will easily see that it is impossible to estimate, with any accuracy, the value of these properties—I mean the chapels and colleges—or to put any figures before you with regard to that, because they are held on different tenures, some freehold, some pure copyhold, and some leasehold of varying lengths; and they differ, of course, in their situation and size; we have a very valuable building in a manufacturing town, and we have a small village chapel elsewhere; it would be quite impossible, except at enormous expense, to put before you any trustworthy estimate of the value they amount to.

Sir John Randles.] The funds you refer to, I presume, are invested funds?

Mr. *Pember.*] Oh, yes, Sir, that is so. Now, I should like, if I may, just to draw your attention shortly to the history of how this movement for union has come up. Of course, union between Methodist bodies has for some time been in the air, but it rather crystallised more in the year 1901, because in that year—

Chairman.] I do not think it is necessary to do more than refer to the Preamble in the Bill.

Mr. *Pember.*] I was only going, Sir, to refer to the resolutions of the Methodist Ecumenical Conference in 1901, which expressed the hope that the re-union of Methodism might come in time, and spoke in favour of efforts in the direction of that; and I have got here a print (which, I think, perhaps the Committee might like to have before them) of the various resolutions of the annual conferences.

Chairman.] If you put them in that will be sufficient.

Mr. *Pember.*] I think you have them, but I will put them in formally. They are before the Committee, and I take it I need not go through them *seriatim*.

Mr. *Essex.*] Do you put in also a paper showing that this movement has been on foot for some years?

Mr. *Pember.*] I think you have that before you.

Chairman.] From 1902?

Mr. *Pember.*] Yes, from 1902. You see there is a resolution of the Methodist New Connexion, and similar resolutions from the other bodies.

Mr. *Ferens.*] May I ask if the question has been before what are known as the quarterly meetings,

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meetings, and the district synods, and that they have approved generally?

Mr. Pember.] Yes, Sir, they have been before the district and quarterly meetings; and I should also add that, from time to time between 1902 and the present date, meetings have been held at different religious centres, and the whole matter has been thoroughly ventilated and discussed throughout the whole of the three Connexions; and the only reason why I should have gone through these matters, and the resolutions *seriatim* would have been to show that this is no sudden and catch vote—no hasty impulse—the whole thing has been fully considered by the three denominations—their office-bearers and their members and everybody thoroughly understand the project; and they have a thorough and mature desire with a full knowledge of all the circumstances, to unite in one United Church.

Mr. Essex.] What I point out is that considerable negotiations took place long prior even to “1902,” which is specified in *this* paper.

Mr. Pember.] I think very likely that was so, Sir.

Mr. Essex.] They did not reach consummation; but still it shows that the intentions of the bodies are the same.

Mr. Pember.] Yes, Sir, I am much obliged.

Sir George Doughty.] Is there anything which shows the minority movement in these different places where the resolutions have been passed?

Mr. Pember.] I can give the figures, Sir. Here are the figures.

Mr. Essex.] I think you might read those to the Chairman.

Mr. Pember.] Very well, I will do that. This question was submitted to the quarterly meetings in 1903 after the conferences in 1903, and two questions were submitted to the quarterly meetings. The first question was: “Do you approve of union with the above named churches” (that would be in each case of course the other two churches) “if found practicable”? The questions are set out on the first page of that paper which you have before you. The result of the voting, Sir, was this: In the Methodist New Connexion of favourable answers 2,161—that is votes I suppose in the circuit quarterly meeting—2,161 for, 45 against, and neutral 111. Now, Sir, I have worked out the percentages of this—they are very small—the percentages against—

Mr. George White.] We can work out the percentages.

Chairman.] It is not necessary for you to give us those.

Mr. Pember.] I need not trouble you with that. In the Bible Christian Church there were 1,708 for, only 8 against, and 45 neutral; in the United Methodist Free Churches there were 4,679 for, 133 against, and 270 neutral. “Question 2:—Do you approve of an effort being made forthwith by duly appointed representatives to draft a constitution with a view to its being submitted to the quarterly meetings for approval?”

Methodist New Connexion—2,044 in favour, 89 against, and 76 neutral; Bible Christians—1,709 in favour, 4 against, and 44 neutral; United Methodist Free Churches—4,450 for, 217 against, and 276 neutral. Those figures were laid before the conference the following year, and the conference of that year (1904) again passed resolutions, saying, amongst other things, “That the conference is satisfied that there exists in the Connexion a real desire for union” (that is on page 2 of the statement) “with other Methodist Churches now negotiating and resolves that the negotiations be continued.” That was after receiving the report of the voting of the quarterly meetings. Then they resolved: “That a committee be appointed *ad hoc* to meet with brethren appointed by the other denominations the number to be 16 with the president *ex-officio* in addition.” Then that committee, Sir, proceeded with their reference and framed a draft constitution and financial proposals; and in 1906 the constitution and the financial proposals were submitted to the conference; I am wrong in saying “1906”—in 1905—the constitution and financial proposals were submitted to the conference of 1905, and having been approved of by them, were remitted to the various quarterly meetings for approval or otherwise. Then you find the figures are these: On the question of constitution there voted in the Methodist New Connexion, for 2,209, against 14, neutral 34; in the Bible Christians, for 1,801, against 18, neutral 107; and in the United Methodist Free Churches there voted for 4,782, against 253, neutral 202; on the financial proposals there voted in the Methodist New Connexion, for 1,661, against 85, neutral 82; in the Bible Christians, 1,801 in favour, 18 against, and 82 neutral; in the United Methodist Free Churches, 4,249 for, against 594, neutral 209. Now, Sir, I am told that the larger proportion of those votes against the financial proposals in the United Methodist Free Church was owing to some feeling that it was possible that in connection with the superannuation funds there might be a further call upon the freewill offerings of the members of that church. That feeling was felt under certain circumstances; a witness whom I will call before you will tell you that since that time that feeling has to a very great extent passed away, and the members of those very circuits are contributing willingly and gladly to a larger extent than they did before to these funds now that they have had the financial proposals before them longer and thoroughly appreciate their effect. That, of course, I shall prove to you by a witness.

Mr. Essex.] Have you any evidence to show that those figures are not worsened since they were taken?

Mr. Pember.] There have been no figures taken since, Sir. Of course there has been a conference,—a conference has been held since, which of course consists of delegates sent up by these very circuit or quarterly meetings, and that conference has, as a matter of fact, passed, I think, with only one dissentient, resolutions in favour of the project of union.

Mr. Essex.] The amount of dissent in that case is less than it was at the previous conference.

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Mr. Pember.] Yes, that is so, Sir, because they were simply unanimous except one vote. Now, Sir, while these negotiations were proceeding, there occurred a case which is no doubt well in the recollection of members of this Committee—the case of the Free Churches of Scotland—which culminated in the decision in the House of Lords in 1904 in the case of *The Free Church of Scotland v. Lord Overtoun*—I might, perhaps, just very shortly recall the leading facts of that case.

Chairman.] I do not think it is necessary to go into that.

Mr. Pember.] Very well, Sir: anyhow, suffice it to say that that case laid down that in the purview of a court of law—I say “court of law”—as distinct from Parliament—where property has been given upon trusts in connection with the propagation of any particular religious belief in connection with a church holding some particular fixed religious tenets, it is not open to the members of that church to change those doctrines and at the same time retain that property. That is a consequence which flows from the law of contracts and trusts, and it was so laid down by the House of Lords. Well, in view of that case, the Promoters of the Bill were advised that it would not be safe for them, for that reason alone, to proceed with their amalgamation without coming to Parliament and asking for powers to amalgamate, because it was pointed out that there was always a risk that a court of law might decide that in some way, either by reason of some alteration of doctrine or alteration of some essential characteristic or principle of their domestic constitution, the new body was not identical with the earlier bodies—the uniting bodies—and consequently that a breach of trust might have been committed. Of course, that is a question upon which, beforehand, nobody could advise them with any safety. You will remember that, in that particular case, there was an extraordinary division of judicial authority in the House of Lords itself.

Chairman.] I do not think it will be necessary to go into the question of whether it was desirable for you to come to Parliament. I think that is admitted, especially on the Report of the Attorney-General. He says nothing to the contrary, and I think you may take that for granted.

Mr. Pember.] I am much obliged to you, Sir. The Committee proceeded with the settling of the Bill, and it was introduced last year, and it passed unopposed through the House of Lords; and, of course, it was subjected to careful consideration at the hands of the Lord Chairman and his adviser, as is usual in that House, and there is a report of the Attorney-General upon it which you have before you; and my friend, Mr. Beaumont, is attending here to-day to represent him in case you should wish to ask him for any information. I need not refer to that report, as it is before you.

Now, Sir, I think, if I may, I will come to the Bill itself. I should point out, Sir, in the first place, that the form of the Bill is this: We do not come before you and ask for the confirmation of a cut-and-dried scheme, for more than one reason. In the first place, I do not think it

would have been possible to get ready such a scheme within the time in which Bills have to be deposited in the autumn; and, secondly, as I have pointed out already, what we felt was that it would not be possible to ask Parliament to settle and define for us our doctrines, or our domestic constitution, and that it would also be contrary to the principle of free churches in general to do so; so we thought, after careful consideration, the proper form in which to approach Parliament was to ask for an enabling Bill; and this Bill, consequently, takes the form of an enabling Bill—it empowers the three bodies to unite. I do not think I need ask you, Sir, to look at anything. It empowers the three bodies to unite in one united conference, and to carry through the union proposed; and the final decision, as to whether the union shall take place or not, in the event of your seeing fit to pass the Bill will, under the Bill, be reserved to the conferences, meeting as one united conference and voting by a three-fourths majority.

Now the first section, of course, is simply the short title, and nothing whatever arises on that, nor do I think there is anything to which I need call your attention in clause 2—the definition clause—except, possibly, the definition of “church lands.” It provides that “church lands” shall include “all lands tenements and hereditaments of whatever tenure and chattels real which now are or which may at any time hereafter be held in trust for or on behalf of the Methodist New Connexion Church, the Bible Christian Church, or the United Methodist Free Churches or any constituent part of any of the said churches or denomination as the case may be or for or on behalf of any society institution or charity subsidiary or ancillary to” them, and whether such trusts are declared by any document or not; and it is to include the case of lands which without any formal execution of trusts are, in fact, held upon trust for either of the denominations or charities ancillary to either of them.

Now, clause 3 is the first operative clause, and it provides that if the three annual assemblies choose to adjourn their meetings, then they are to be adjourned by virtue of the Act, and then it empowers the three meetings to sit together as one united conference.

Then 4 is merely a matter relating to the procedure of that united conference, the election of the president and secretary, I need not call your attention in more detail, I think, to that. Clause 5 provides that the rules of procedure shall be those of the annual conference of the church from which the first elected president is chosen. That is merely a matter of procedure. “The declaration of the president of the united conference shall be conclusive evidence as to the numbers voting.” Now, Sir, I come to the first important section. “It shall be lawful for the united conference by resolution carried by the votes of not less than three-fourths of the respective representatives of each of the said churches or denominations present at the united conference and voting upon the said resolution (the representatives of each of the said churches or denominations voting first separately and then as one body) to declare that the said churches or denominations shall be united in

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in and form one united church or denomination under the name of 'the United Methodist Church,' and under such constitution and upon such terms and conditions as may be declared and defined in a deed poll of foundation to be settled and adopted by the united conference as in this Act provided." So that what we desire to do is to reserve to the three conferences the ultimate decision as to whether the union shall take place or not, so that the union shall be the autonomous act of these three bodies.

Now, the next section, I think, is perhaps the most important in the Bill. It gives power to the united conference "to adopt a deed poll of foundation." I think it is the most important in the Bill, if you take it in connection with clause 11, which provides that church lands shall be held in trust for the United Methodist Church, and clause 15, which provides that personal property of the united denomination shall be held in trust for the United Methodist Church. Those three sections, I think, are really the kernel of the Bill.

Now, Sir, you will observe, no doubt, that the clause is drawn in a very wide and elastic form; it refers the settlement of the deed poll foundation to the united conference—again requiring a three-fourths majority for the adoption of the deed—and it empowers them to adopt the deed poll foundation, declaring and defining the constitution and doctrinal tenets of the church under the name of "the United Methodist Church," the terms and conditions of union—I am shortening it of course—"and containing all such provisions as to the election powers duties and privileges of the conference of the United Methodist Church and all such other provisions (including powers from time to time to alter amend or repeal any of the provisions of the deed poll of foundation or of the constitution of the United Methodist Church as declared and defined thereby and to adopt any new provisions with respect to any matter to which the deed poll of foundation relates or to the constitution of the United Methodist Church) as in the judgment of the united conference may be necessary or desirable for the government and discipline of the United Methodist Church." Then follows a provision providing for reference to documents of the deed poll as amended, with which I need not trouble you.

Well, Sir, I think it does not need much argument to show that if Parliament sees fit to empower us to enter into this union, it is reasonable that it should empower us in framing our constitution to insert in that constitution every provision which may be necessary for our domestic government and management and discipline; and further, I think, to give us power from time to time—as occasion arises and new needs—to alter, amend, or repeal those governmental provisions, and to make new provisions to meet new conjunctures which may arise, but the deed, of course, goes to another point also, because it provides that we shall be able to declare and define our doctrinal tenets. Now, on that point, something has already been said; the point is a very important one, of course, but I think it is in a way a short one and I do not know really that I ought to repeat

what I have said already, but I think it comes to this, that it is not in our view—I am speaking, of course, with the possible greatest respect—desirable that a Free Church, or three Free Churches, should ask Parliament—we think it is not consistent with the conception of a Free Church to ask Parliament—to declare or define a form of words embodying the doctrines held by these Free Churches, nor do we think that Parliament, even if we had asked it, would feel itself able to undertake that task.

Sir George Doughty.] May I say I did not intend to imply that I wanted Parliament to prescribe what were to be the doctrines. The only point in my mind was, that if you were asking Parliament for a constitution, was it not a proper thing for the church themselves to agree on that constitution, and to embody it in their Bill; that was all.

Mr. Pember.] Well, Sir, the difficulty we feel about that is, of course, that even if it is framed by the churches independently of Parliament, and introduced in the form of a schedule to the Bill, and even if Parliament took that schedule and confirmed it by a section in the Bill without altering one jot or tittle of what was contained in the schedule, nevertheless Parliament would in effect be defining or sanctioning the tenets contained in that schedule. It might even be said in a sense that Parliament was establishing the church; it certainly would, I submit most respectfully, be giving Parliamentary sanction to the constitution of the church and to statements of its doctrine; because that would really be confirmed by the Act to which they were scheduled, and it is for those reasons, Sir, that we did come before Parliament and ask them to leave it to us—to empower us to frame our own constitution and to state our own doctrines.

Now, Sir, I think I have already said that the doctrines at present are practically identical, and that it is not intended in any way in the declaration of the doctrines in the proposed deed poll to depart from those existing doctrines; but, Sir, we do further desire to have power, if need be, from time to time to re-state or alter our statement of doctrine. We do not anticipate that we are likely to do so for many years to come, we cannot tell, but we do not anticipate it; and we propose to hedge that power about in our constitution with very careful restrictions; it is not to be exercised except after consulting the circuit meetings as to the proposed alterations; it is not to be exercised—

Chairman.] Where is that—clause 13?

Mr. Pember.] I say at once, Sir, that is not in the Bill.

Chairman.] But the foundation is laid down with regard to altering the model deed under clause 13.

Mr. Pember.] That is the model deed, Sir. This is the deed poll foundation. In the case of the deed poll foundation it is proposed that restrictions and alterations shall be contained in the deed itself.

Sir George Doughty.] Then an alteration in that particular deed can be made by a three-fourths resolution of the conference, and there is no appeal to the circuits and synods.

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Mr. Pember.] Not in the Bill, Sir, but there will be in the deed. We propose to do it, Sir, and witnesses will tell you that there is no doubt that it will be done. There will be inserted in the deed poll a clause providing, not only that alterations in doctrine can only be made on the vote of a three-fourths majority of the conference of the United Church, carried in one year and confirmed in the next year following, but also that even that first resolution shall not be moved except after the whole project of alteration has been circulated in the year before to the circuit or quarterly meeting.

Sir John Randles.] "Circulated," you say. Voted on, do you mean?

Mr. Pember.] Certainly, Sir. At their autonomous meetings they will be able to vote for it, and they can send up their delegates by a resolution of their body to the central body.

Sir George Doughty.] You propose to make that clear in the Bill, do you?

Mr. Pember.] We propose to make that absolutely clear in the deed poll.

Sir John Randles.] It is not so in the Bill?

Mr. Pember.] No, it is not in the Bill. We propose to put it in the deed poll, and there will be the further restriction in the deed poll that the project of alteration shall only be mooted at certain periodic years—1915, I think, and then on every ten years; so that I think the Committee may take it as undoubted that this power, if granted, will be so carefully hedged about that there is no possibility of the denominations being carried away by any chance wind of doctrine if any alteration is made. I have told you, Sir, that the witnesses will tell you that they do not anticipate any necessity arising for using the power for a long time to come; and if any alteration should be made, it will only be made after the fullest consideration, not only by the central governing body of the church but by the circuit or quarterly meetings (which are, I think, the same thing) throughout the whole body of the denomination; so that, I think, there will be plenty of security, even if you had not sufficient security in the character of the conference and the importance of it—the conference of this united body. If you empower it to unite, I think you may fairly assume that a conference of that nature would not be likely to do anything rash; but at any rate it is so hedged about that it cannot do anything rash if we want to do it; but what the Promoters of the Bill feel is this—that they cannot take upon themselves the responsibility either to ask Parliament to frame or themselves to frame a cast-iron creed unsusceptible of alteration or amendment, which is to bind the consciences (short of a special application to Parliament, for Parliament is omnipotent) of their successors through every generation.

Now, Sir, I should like to say just a word or two more upon this point, because it is so important.

Chairman.] It may be necessary when we come to the clauses, but I do not think it is necessary at the present time to go into detail.

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Mr. Pember.] Very well, Sir. If you will allow me to reserve my further argument upon this point until you get to the clauses, of course I at once accept that suggestion. I was going to argue further as to the propriety and reasonableness of such a power as this but after that intimation, Sir, I will reserve it until we come to clauses.

Then, Sir, after that intimation I will say no more on this particular clause, but I will just very shortly refer you to one or two other clauses of the Bill. Clause 8 provides that the deed poll is to be executed and enrolled at the central office.

Chairman.] I do not think it is necessary to go even into these ancillary clauses.

Mr. Pember.] Very well, Sir.

Mr. Essex.] I would like to ask one question before you leave that point. On the principle you are laying down—freedom to alter items of creed—one of your bodies, at least, has already had that power for a great many years—the Bible Christians.

Mr. Pember.] That is so.

Mr. Essex.] They have had it for a period of about three-quarters of a century.

Mr. Pember.] I think that is so.

Mr. Essex.] Have they ever exercised that right?

Mr. Pember.] No, I believe not. I was just going to adduce that fact as an instance that you might safely trust this conference with such a power in full confidence that it would not be rashly used.

Mr. Essex.] Have either of the other bodies expressed any view as to whether they have power to do it or not during their hundred years' life?

Mr. Pember.] I do not know that they have; but, of course, as you have mentioned that point, I might just point this out to the Committee, that unless the Committee should see their way to grant us this power to alter our doctrines, they will be putting upon the Bible Christian Church—which is the body to which the honourable member on the extreme left referred—they will be putting upon this Bible Christian Church this penalty against entering into the amalgamation, that is, that they will be deprived of a power which they undoubtedly possess at the present moment.

Sir George Doughty.] On the other hand, you define doctrine in the deed poll of the Methodist New Connexion, and you are going to rob those who have subscribed funds from time to time of the assurance that these doctrines will be maintained if we give freedom such as you suggest. That is the other side of the question.

Mr. Pember.] Yes, that is quite true. After the honourable Chairman's intimation I was proposing to address myself to that point when we get to the clauses.

Sir John Randles.] There is another point upon which I should like to ask a question. Is there

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there any objection to embodying what you describe as being intended to go into the deed poll, in the Bill in reference to the synods or district meetings? It requires a three-fourths vote of the conference.

Mr. Pember.] That is so, Sir.

Sir John Randles.] But in the deed poll it will define it—that it must go before the district meetings.

Mr. Pember.] Yes, Sir.

Sir John Randles.] Is there any objection to embodying in the Bill the necessity of going to the district meetings as well as the necessity to go to the conference? I only want to know if there is an objection to it.

Mr. Pember.] Might I for a moment, Sir, speak to my clients?

Chairman.] Yes.

Mr. Pember.] I could not myself see that there would be any objection to that; but I have consulted the Promoters of the Bill, and they desire me to say to the Committee that they see no objection whatever to putting that in.

Sir John Randles.] Thank you, I am much obliged.

Mr. Pember.] If the Committee desire it, we should be perfectly prepared to insert in the Bill a proviso.

Chairman.] I think there would be strong grounds why that should not be inserted in the Bill. You are going to be governed by the conference—by a majority of the conference?

Mr. Pember.] Yes.

Chairman.] I think you would be fettering yourselves a very great deal by putting it in the Bill.

Mr. Pember.] Of course, I may say that my clients instructed me to say that they saw no objection. Of course, as a matter of fact, they would much rather not have it put in the Bill, because it is in a sense rather a domestic matter, and it would rather cumber the Bill. They would prefer not to put it in; at the same time, if the Committee—

Mr. Essex.] You would set up a conflict possibly between the districts and the conference.

Mr. Pember.] Possibly; it might be so.

Sir John Randles.] It is only proposing to do by Bill what you are proposing to do by deed poll.

Chairman.] That is ascertained in the first instance.

Sir John Randles.] That which the deed poll is proposing to do.

Mr. Pember.] Yes, that is so. Of course, I might point out, Sir, that the conference will be a representative body represented by delegates elected by those very districts.

Sir John Randles.] The synods—the district meetings—are also even more representative, I take it, than the conference itself.

Mr. Pember.] I think there is a considerable ex-officio element; for instance, I think the superintendent minister of every circuit in the district is a member of the district meeting as of right.

Sir John Randles.] Yes, but there are a great many more laymen attend the district meetings than attend the conference.

Mr. Pember.] I think, Sir, there need be no apprehension but that under the provisions proposed in the deed poll foundation, the district meetings would have every opportunity of making their feelings known to the conference before it proceeded even to the first vote. Of course, as I say, we would rather that this particular proviso—these checks on this power—should be left to be inserted in the deed poll foundation; we would much rather that was so; at the same time, if the Committee intimated a strong feeling the other way, we should not wish to appear obstinate or contumacious.

Sir John Randles.] In fact, you would rather get your Bill than not have it inserted?

Mr. Pember.] That is so.

Chairman.] I think it would be a very wrong system to adopt, to lay before the local districts a particular scheme for approval or otherwise, and then when that scheme came before the conference—to their representatives on that conference—they were tied down as to whether or no they should adopt the Bill in its exact shape without power to alter it.

Mr. Pember.] I did not understand the honorable member to suggest that.

Sir John Randles.] I do not suggest anything of that sort.

Chairman.] I think it went a great way in that direction.

Mr. Pember.] It did; it went further than we liked, Sir.

Sir George Doughty.] May I make clear to your mind what is in my mind? My point is this: Supposing that there is an agitation to alter some particular doctrine, it does seem to me that the district meetings, which represent so largely the different churches, should be consulted before such a power could be finally operated by the conference itself.

Mr. Pember.] That is precisely what we intend to do.

Chairman.] And the conference can lay down rules—and naturally would lay down rules—that they should be consulted.

Mr. Pember.] It would.

Mr. Essex.] I do not conceive that there would be any greater question likely to arise at any district meeting which was called to elect representatives for the conference than a proposal to alter its creed.

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Mr. Pember.] I should have thought not.

Mr. Essex.] If that were so, the men who were sent up from those districts would clearly have a mandate to the conference, and you would have a greater guarantee.

Mr. Pember.] I think so, Sir. Then I think perhaps I may postpone anything else I have to say on the clauses for the moment, after what you have said. They are all clauses dealing with matters of detail, and I do not think any matter of principle is raised by the later clauses.

I should just add this, that there are some clauses at the end which interest Government offices and other public bodies. There is a provision in clause 26: "As to buildings certified as places of religious worship and registered for solemnisation of marriages." That, Sir, of course, concerns the Registrar-General. The object of the clause is this—

Chairman.] That is a formal matter also.

Mr. Pember.] Yes, Sir. I was asked just to

mention it to you, but it is a formal matter; and similarly, I think, clause 28 as to schemes of the Charity Commissioners or the Board of Education. I think, Sir, with your permission I will proceed to call my evidence. I have got several witnesses here. Of course, the first witness I have to take at some little length over the ground, but the others will be all extremely short.

Chairman.] I do not think even with the first witness it will be necessary to go through the figures again.

Mr. Pember.] Very well, Sir.

Chairman.] It will simply be sufficient to confirm the statements in the Preamble. I think you need confine yourself only to that.

Mr. Pember.] Very well, Sir.

Mr. F. W. Pember was heard to open the case for the PROMOTERS.

The Rev. EBENEZER DARREL CORNISH; sworn.

Mr. Pember.] I understand, Sir, you do not wish me to take this gentleman through the figures I have given you?

Chairman.] The Committee do not wish to hear them again. He may say that he has heard your statement and confirms it.

Mr. Pember.

1. You are a minister of the United Methodist Free Church, of 38 years standing?—I am, Sir.

2. You were president of this Church in 1898?—I was.

3. You held the office of chapel secretary and various other offices, including the secretaryship of the Superannuation Beneficent Fund?—That is so.

4. And you are secretary to the Parliamentary Committee promoting the union of the three churches?—That is so.

5. Have you the Bill in your hand?—Yes.

6. And you have read the statements in the Preamble?—Yes, that is so, Sir.

7. Are those statements correct and true?—They are.

8. And you have had the misfortune to listen to my remarks. Are the figures and facts which I opened to the Committee also correct?—I have checked them as Counsel has gone through them, and they are correct.

9. Of course I suppose you are well acquainted with the state of feeling amongst the Free Churches, particularly the various branches of the Methodist family?—I am.

10. As to the feeling in favour of union amongst those Churches, what do you say?—That is very decided, Sir.

11. Will you tell the Committee what, in your view, are the advantages which will accrue to your denomination from being amalgamated? Well, of course it will prevent overlapping, tend to the efficiency of the churches, and it will reduce very largely the cost of administration. Those are the material matters, but there are the

Mr. Pember—continued.

higher spiritual matters. It is an evidence of the unity of the Church, and is an approximation towards the great ideal which we have cherished for many years of Methodist Unity.

12. With regard to the doctrines at present held by these three bodies who desire to unite, are they in substance identical?—Oh, they are; we are all Methodists.

13. With regard to the question of your statement of doctrine in the deed poll which you will frame if Parliament authorises you to unite, do you propose to make any alteration in the substantial doctrine at present held by the three bodies?—Oh no; the doctrines are practically the same. Of course words alter a bit, but the doctrines are the same.

14. And with regard to the suggested power which you desire, to alter or restate your doctrine from time to time, is it a power which you anticipate that you are likely to authorise the use of in the immediate future?—Oh, no.

15. Your attitude is, is it not, that you are not empowered to frame a creed which will tie up your successors?—Most decidedly that is our attitude.

16. Now with regard to the feeling in the three existing denominations in favour of the Bill, can you tell the Committee what it is?—It is stronger, now, Sir, than it was a few years ago; it is stronger now than when this vote was taken.

17. And with reference to a certain percentage of adverse—I will not say hostile, but adverse—voting in 1905 on the question of the financial proposals, will you tell the Committee whether that amount of opposition has remained undiminished or whether it has been lessened by time?—It has largely diminished, as is evidenced by this fact: A great deal of this opposition arose out of the position of affairs on what is called the superannuation fund. We had gone into the matter, and felt that it was necessary that the churches should contribute more than they had done

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[Continued.]

Mr. Pember—continued.

done. There was a little opposition. Well, since then that opposition has very largely died away, insomuch that circuits that were antagonistic are now contributing largely to the fund.

18. I think that is all I need ask Mr. Cornish. The Committee may like to ask him, perhaps, some questions.

Mr. Essex.

19. Have you travelled about through all the bodies that are proposing to amalgamate really?—I have not travelled much amongst the Bible Christian churches, but I have amongst the others—the United Methodist Free Churches and the Methodist New Connexion.

20. And it is from your latter knowledge that you declare your belief that the desire for this movement is really strong?—It is.

Mr. Pember.] We have a witness here from the Bible Christians who will answer the Honourable Member's question. I think Mr. Cornish ought perhaps formally to put in the three Foundation Deeds of the three bodies.

Chairman.] We have got copies of them.

Mr. Pember.] They have been handed in, but I put them in formally through him.

Chairman.] We will take them as being put in.

Mr. Pember.] May we take it that the Minutes Volume is put in?

Chairman.] Yes.

Sir George Doughty.] You are a "Free" Methodist?

Witness.] I am, Sir.

21. In connection with your church, I suppose there will be persons who will have left a good deal of money at different times in their wills to the "Free" Church?—That is so, Sir.

22. For the teaching of the doctrine of that church?—Well, they have left it to the churches.

23. You mean by that that they have left it to the "church" for the time being to do as they liked with it?—For the promotion of given objects. For instance, a good friend in Sheffield left a good amount of money for our superannuation fund and for our chapel loan fund. Well, that is for the objects of those specific funds.

24. All these funds, as I understand, whatever branch of your church they have been left to, have been left for some specific purpose—that is, the teaching of your doctrine and to subscribe to the maintenance of your church?—I should not say for the teaching of specific doctrine; it has been left for the promotion of the objects of those funds.

25. Do you think it is wise that the new body should have unlimited power to alter their doctrine if they please?—Undoubtedly, Sir, for this reason: Truth is always larger than any statement of it.

26. I understand by that, that if a three-fourths majority of your new church were to become Unitarian, you would think no injustice was done to the minority of 25 per cent. who were required to subscribe to their tenets?—If

Mr. Essex—continued.

three-fourths of the Free Church were to become Unitarians, I should say that it was a sorry thing for the church which would have become a Unitarian Church then.

27. What I am trying to get from you is this: Would not the consciences of the 25 per cent. which is left be seriously violated, and would not they, in effect, represent what the church had originally meant?—Well, if the 25 per cent. left are the small remnant of the church, I should be very sorry for them, but I should feel that the property belonging to the church itself, represented by the large majority, belonged to that church in its new dispensation.

28. You would be sorry, but would not you say that their consciences would be violated?—I do not think their consciences would be much violated, Sir. It is an almost impossible state of things to imagine.

29. Do not you think, looking back over the history of generations—I mean in church life—that changes do come, and that it is necessary to have safeguards. Is not that so?—Looking through the history of church life, Sir, I should say the progress is quite in the other direction.

30. Might I ask, Have any of these legatees at any time put an express condition to the legacy to the effect that the sums so devised, or given, should be applied only to a body teaching the doctrines then existing?—I know of no legacy which has involved any statement of doctrine, Sir.

Sir John Randles.

31. I suppose you know that there are Unitarian Churches that were not originally Unitarian Churches?—Yes, I know that—Presbyterian.

32. Leaving that point, I am not anxious to find out from you so much whether you think there should be a power to change the doctrine, but I would like to know whether your people, in discussing this proposed amalgamation, whilst they are generally in favour of amalgamation (practically unanimously so) are aware that under this Bill which you are framing, it would be possible by a three-fourths majority of the conference to change from Methodism to Unitarianism in belief. Are you aware of that? That is what I want to know?—What I should say, in answer to that question, is that they are aware that it is possible for the churches by a three-fourths majority to alter their beliefs.

33. They are aware of that?—Oh, yes, they are aware of that.

34. They quite understand it?—Yes.

35. Leaving that point, in reference to the question of the reference to the district meetings, I understand that you do not see any great objection—the Promoters see no great objection—to the reference in the Bill being to the district meetings as well as to the conferences. You do not see any great objection to that?—I do, Sir.

36. Oh, you do?—I do.

37. You do not agree with the Promoters?—For this reason: Conference is an authoritative body, and to insert a clause referring to district meetings would be to put another body in competition with your authoritative body.

38. So

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[Continued.]

Sir John Randles—continued.

38. So that you do not approve of its being embodied in the deed poll?—Oh, yes, I do.

39. You do?—Yes.

Mr. Pember.] So that we may have it quite clear, may I say that what we do not object to it is a proviso in the deed poll that any proposal for change should be laid before the district meetings—the quarterly meetings.

Chairman.] That must be taken for granted, because in choosing their representatives they are but choosing them for the specific object; and if the doctrines are changed, it is bound to come before the churches when they elect their representatives for the second annual meeting, by which this alteration would have to be ordered.

Mr. Pember.] That would be so.

Witness.] And I might add this, if you will allow me, Sir,—that there is nothing awakens such feeling as a question of doctrine, and if a question of change of doctrine came before the district meetings, you would have the representatives chosen upon that question altogether.

Sir John Randles.

40. Are the members of the conference all elected by the district meetings?—With the exception of a very few. There are a few necessary officers, and we are proposing that there shall be a number of guardian representatives—24 guardian representatives—elected for a term of six years.

41. The conference itself; would it elect any?—No. The district meetings alone would nominate these guardian representatives; and the conferences are elected.

42. Will the conference elect any representatives itself?—No, only the guardian representatives.

Chairman.

43. They are nominated?—They are nominated.

Sir John Randles.

44. They are nominated by the district meetings?—By the district meetings.

Mr. Gwynn.

45. Would you mind explaining in what sense they are nominated? What is the meaning of that as distinct from elected?—The district meetings are held a few months before the conference; conference business is brought before those district meetings, and those district meetings have the right to nominate to the conference for election, certain persons to be chosen as guardian representatives.

46. The conference makes its choice from among the persons nominated?—That is so.

Chairman.

47. But these guardian representatives are not the whole of the representatives?—Oh, no. There are only 24 of those.

Sir John Randles.

48. The district meetings are very much more representative of the laity than the conference, I

Sir John Randles—continued.

presume. You have a larger body of laymen present in the district meeting in proportion than you have in the conference?—No, Sir.

Chairman.

49. You are bound to have?—Well, not of ministers. I have not gone into figures.

50. In the district meetings?—In the district meetings; all the ministers attend the district meetings and the circuits elect representatives to the district meeting.

Sir John Randles.

51. Yes; but are they not in the proportion of two or three or four laymen to one minister?—I do not think that would be so in the united district meetings; it will practically balance.

52. It is not so in some?—That may be so, but we are speaking of *our* proposals.

Mr. Pember.] I am told it is about a balance, certainly in the United Methodist Free Churches. I have another witness from those churches who will tell you that.

Witness.] I would like to add that it is an important point in relation to this matter of the change of doctrine. I said just now that we cherish the idea of Methodist unity, that is, the whole Methodist family in this Kingdom coming together as one church. Now, in the Wesleyan Methodist body there is no definite statement of doctrine in its deed poll; in the Primitive Methodist body there is no definite statement of doctrine in its deed poll. The only statement in the deed poll of those two bodies is this, that nothing contrary to the teaching that is found in John Wesley's Notes on the New Testament and his sermons shall be taught. So that it is merely a negative position. Now when we come to union, we shall have to formulate a basis of faith which will be Methodist, and we want to be able to go into these negotiations for Methodist union with a hand comparatively free, so that we may be able to adapt ourselves to the rest of the Methodist family.

Sir John Randles.

53. I do not want to prevent you in any way. Do not misunderstand?—That is one object we had in seeking powers to vary our deed poll.

Mr. George White.

54. One question in regard to violating the conscience. I suppose all the members of these churches join them in order to have the advantages of Free Churchmen?—That is so.

55. Therefore they recognise that with the right of Free Churchmen they have got to take the perils of liberty which may in some way or other at some future time make some slight changes in their present theological beliefs; they recognise that there is that peril attaching?—That is so.

56. And they are quite willing to take it in order to have those advantages; therefore, if the catastrophe happens which my honourable friends have foreshadowed they need not violate their consciences because they would have the privilege of coming out; they would be entitled to do that?—That is so.

57. As

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[Continued.]

Mr. Hay Morgan.

57. As to the possibility of the Church becoming Unitarian, have you ever heard of a Methodist Unitarian Church?—No.

58. So that if three-fourths of the voters even voted to become Unitarian, would not they have to come to Parliament to get this altered.

Chairman.] I think they would have a perfect right to be Unitarians.

Mr. Hay Morgan.] Not in the Methodist Church.

Witness.] That is so; but I may say this in order to quiet the alarms that any may cherish,

Mr. Hay Morgan—continued.

the tendency is further away from Unitarianism to-day than ever it was before.

Sir George Doughty.

59. Would you object to some words being enacted in one of these clauses which you have mentioned in regard to the deed of Wesleyan Methodism, namely, that the doctrines shall be embraced in what Mr. Wesley taught and wrote?—I should object to it; I should object to it most decidedly. John Wesley was a "broader" man than many people imagine him to have been.

The Reverend EDWARD BOADEN; sworn.

Mr. Pember.

60. You are a minister of the United Methodist Free Churches of 58 years standing, and you were president of the denomination in 1871, I think?—That is so.

61. You held the office of chapel secretary for 38 years, up to 1902?—Yes.

62. And I think you have sat on every annual assembly or conference of the United Methodist Free Churches since 1861, and you have been a member of the Union Joint Committee, the committee that has been preparing this scheme of union, ever since its commencement?—Yes.

63. Now you have been in the room while Mr. Cornish gave his evidence, may I take it generally that you confirm what he said?—I do, Sir.

64. Now, I think we have already had sufficient evidence of the fact that the question of union between these three bodies has not arisen suddenly; therefore, I will not take you through the questions I had intended to ask you. Will you just tell the Committee whether there is throughout your United Free Churches a feeling in favour of the proposed union?—There is a general feeling, almost unanimous, and that feeling is very strong.

65. And do you believe that considerable advantages will accrue to your three denominations if this union is permitted?—I do.

66. Now, with reference to the power to alter the statement of the doctrines of the proposed United Church, do you agree with Mr. Cornish that that is a very important thing indeed to have, and very desirable?—Yes, Sir, I agree.

Mr. Pember—continued.

67. And do you concur generally in the reasons which Mr. Cornish has given for your desire to have that power?—Yes.

68. I think that is all I need ask you.

Sir John Randles.

69. I just want to know if it is your belief that the members of your church who have considered this matter were fully cognisant of the fact that there was a power to alter their doctrine by a three-fourths vote of their conference, and that they approve of the amalgamation on those particular lines?—I may say, Sir, in answer to that, that I have travelled a good deal; I have attended a great many meetings, circuit meetings and otherwise, where the question now before us was brought before them.

70. This particular question?—Yes; and they were fully aware of and approved of what was intended.

Mr. Pember.] Now, Sir, with your permission, I propose to call quite shortly one more gentleman, he being a minister of one of the other two denominations, and then I have two or three representative laymen, who have kindly come here; and I thought, with your permission, I would put two of them into the box and take their evidence quite shortly; I do not wish to weary the Committee, I will call, with the Committee's permission, the Reverend George Packer.

The Reverend GEORGE PACKER; sworn.

Mr. Pember.

71. You are a minister of the Methodist New Connexion Church, and have been for the last 42 years?—Yes.

72. You were president of the church in the year 1895-6, were you not?—Yes.

73. You have been a member of the conference for 31 years?—Yes.

74. You have been the secretary of this union committee which has been preparing this Bill?—Yes.

75. And you have held that office from the beginning of the negotiations?—Yes.

Mr. Pember—continued.

76. I think you have attended very laudably, every meeting of the committee and most of the various sub-committees?—That is so.

77. Which have been appointed for purposes in connection with the preparation of this union scheme; and you are a guardian representative and secretary of the Foreign Missions and Extension Fund?—Yes.

78. You are also a trustee of the connexional college and other institutions in connection with your denomination?—Yes.

79. I think

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The Reverend GEORGE PACKER.

[Continued.]

Mr. Pember—continued.

79. I think you were in the room when Mr. Cornish gave his evidence?—Yes.

80. May I take it that you confirm generally what he said?—Yes.

81. With regard to your own denomination, what do you say as to the feeling about the proposed union?—The feeling is universally in favour of union and strongly in favour of union.

82. And what is your feeling as to the advantage to be derived from the project of the union?—I agree with all that Mr. Cornish has said on that matter, and I presume, therefore, I need not repeat it.

83. No. I think the duties of your office take you practically every year over the whole of your Connexion, do they not?—Very largely. I visit pretty nearly all the districts in the course of the year, there is not indeed a circuit in the Connexion that I have not visited within the last few years.

84. So that you are in rather an exceptional position to speak to the whole feeling of the Connexion with regard to this Bill?—That is so.

Chairman.

85. Do you confirm the statements made in the Preamble of the Bill?—Yes.

Sir John Randles.

86. You are satisfied that the members of your own church approving of this amalgamation do so on those particular lines, knowing that there is a three-fourths majority power to vary the doctrinal tenets; they had that present to their minds, had they?—Yes, not merely that, but our conference is just over; ours is the first of the three conferences; the other two have not been held yet. In expounding this matter before the late conference, which is only just over, I explained the position as it has been put by Counsel before the Committee this morning, that is to say that the doctrine that would be in the deed poll, and adopted by the conference, would not form part of the Act of Parliament, that is, as I suppose, would be the case; and I explained what would have to be done in case there was an alteration, that is to say there must be a three-fourths majority of the conference and that it must be submitted to the circuits which elected the district meetings. The very persons who elect the constitution for making the conference will have the matter before them, and it will then have to be carried by a three-fourths majority again before anything could be done. I may say, however, that there is not the slightest desire that I know for the change; I do not know of any such desire, it is simply felt that a re-statement perhaps may be necessary in the course of years.

Chairman.

87. You cannot foresee that any necessity for change would arrive in the lifetime of anybody present in this room?—That is so.

Chairman—continued.

88. But you think it is desirable to have the power to do it, so that you need not come to Parliament again in the event of the necessity arising?—That is the very advantage.

Sir John Randles.

89. What I wanted to know was that your people understood it, and in reply to my question your answer is, "Yes," that they did?—Yes.

Mr. Ferens.] I think Mr. Packer goes further than before in stating that the matter will be referred to the quarterly meetings in the circuit.

Witness.] Yes. The method proposed will be for all such questions in the decennial periods to be referred, in the first instance to the circuits; the circuits will elect the district representatives.

90. Only at the decennial period?—Only at the decennial period. Well, as regards the "decennial period," it was felt that possibly in the formation of the new church there might be need of a change in some respects—governmental or otherwise—in a shorter period than the ten years, so that the first alteration is to be "1915"; after that the decennial period will govern.

Sir George Doughty.

91. We have, as I understand, an assurance in what this gentleman has said, that this question of alteration will be referred to circuits in this way?—All the people—the people themselves.

92. That is so; and if that is going to be embodied in the trust deed, that satisfies me?

Chairman.] I think we may take it for granted that the people in electing the conference will, in the first deed make arrangements, if a change has to be brought about, how that change shall be done.

Witness.] Exactly.

93. The churches would have the power to do that?—Exactly.

Sir George Doughty.

94. But is not that going to be stated in the trust deed—the method by which this should be done?—In the deed poll?

95. I mean in the deed poll?—Oh, yes, that is to be in the deed poll.

Chairman.] This Bill does not define in any way that it shall be included in the deed poll.

Mr. Pember.] No, that is so.

Sir George Doughty.] I understand from this witness that the committee have the assurance that it is the intention to do so.

Witness.] It is undoubtedly the intention.

Mr. Pember.] It is the intention; and it is the intention, Sir, that this matter should be referred to the circuits and districts. I am told that that is so, Sir.

96. This

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The Reverend JOHN LUKE; sworn.

Mr. Pember.

96. This gentleman, Sir, is from the Bible Christians, the other denomination which have not yet been before you. (*To the witness.*) You have been a minister of the Bible Christian Church for the last 35 years, and you were president of the church in 1900 and 1901?—That is so.

97. And you have held various other offices in connection with the church?—Yes.

98. And from the beginning you have been a member for instance of this committee for dealing with the union?—That is so.

99. I suppose you have read the Preamble of the Bill?—I have.

100. Are the statements contained there true?—Perfectly true.

101. And I think you have had the advantage of hearing Mr. Cornish's evidence in the room?—Yes, Sir.

102. Do you generally confirm that on behalf of the Bible Christian Church?—Entirely so.

103. And I think I am correct in what I said, am I not, that the Bible Christian Church was rather an offshoot than a secession?—That is so.

104. Can you speak as to the desire of the Bible Christian Church for this union between the different churches?—It is overwhelmingly in favour of it; and a few who were opposed have given over their opposition; we are practically unanimous.

Mr. JAMES DUCKWORTH (a Member of the House); sworn.

Mr. Pember.

110. I think I need not introduce you, Mr. Duckworth, to the Committee. You are a member of the United Methodist Free Church, and were president of the Connexion in 1894–1895?—Yes.

111. For the last 14 years you have been a member of their annual assembly?—Yes.

112. And I think also you are a member of the Connexional Committee of the denomination, are you not?—Yes, that is so.

113. That is a Committee which practically exercises a large amount of the power of the annual assembly between its sessions?—Yes.

114. When it is not sitting?—Yes.

115. You are also treasurer of the Manchester Theological Training College?—Treasurer of the endowment fund.

116. You have heard, I think, Mr. Cornish's evidence; do you confirm it?—Yes, Sir.

117. Has the question of this union been very carefully considered by the members of your church?—Yes, it has.

118. Is there a strong feeling throughout your Connexion in favour of the proposed union?—Very strong indeed.

119. And speaking for yourself, with your knowledge of the three bodies, what do you say as to the advantages to be derived from the union?—I am sure the advantages will be very great.

120. And promote efficiency and economy in religious work and administration?—That is so.

Mr. Pember—continued.

105. Now, I want to ask you just one more question. Are the members of the Bible Christian Church under the impression that they have at present power to change their doctrine?—We have power now—yes.

106. As a matter of fact, you have already, I think, availed yourself of that power?—We have had that power, but for 92 years we have not exercised it.

107. But you regard it as of very great importance that a Free Church should have that power?—We believe that we should have such liberty.

108. And would you regard the necessity of surrendering that power as a very serious disadvantage to you?—Certainly; it would be retrograde.

Sir John Randles.

109. Your people are fully conversant with the contents of this Bill, I presume?—Yes; the Bill was laid before the various "courts" some week or two before the matter was discussed in a quarterly meeting.

Mr. Pember.] Now, Sir, if I might, I will just call a layman or two of the church who have been good enough to come here. I should like to call Mr. Duckworth, who is a Member of your honourable House.

Mr. Pember—continued.

121. And am I to take it that you agree with the other witnesses in what they have said as to the paramount desirability of having power from time to time to restate your doctrine?—Oh, yes. We could not be what we are if we had not that power. It is the price we have to pay for freedom, and we are prepared to pay it.

Sir John Randles.

122. Do you see any objection to the synod, that is to say, the district meeting or, perhaps, the quarterly meeting being, as the Promoters suggested it might possibly be, under the Bill as well as under the deed poll?—That would not do if you put it in the Bill. We do not want it in the Bill.

Chairman.

123. Can you imagine a state of things where they would not be consulted? I suppose, if this Bill passed, they would be consulted?—That is so. They must be consulted from the quarterly meeting upwards.

124. Your conference could not be constituted unless they were consulted, could it?—No, not at all. They must be consulted.

Sir John Randles.

125. That is supposing the deed poll is adopted in that particular form?—Yes.

126. Suppose

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Mr. JAMES DUCKWORTH (a Member of the House).

[Continued.]

Sir George Doughty.

126. Suppose you died and left a hundred thousand pounds to this United Church, would you think it right that a hundred years hence doctrines that you do not believe in now should be adopted by them, and your money used to teach them?—If the people had anything to do with it and thought it was a right and proper

Mr. George Doughty—continued.

thing for them to go through the process of voting, I should say “yes.”

127. You call that the “price of freedom”? —That is the price of liberty.

128. The liberty of somebody else to use your money in a way you do not believe in?—I see no hardship.

Sir CHARLES THOMAS SKELTON; affirmed.

Mr. Pember.

129. You have for 50 years been a member of the Methodist New Connexion Church?—Yes.

130. And for 20 years you have been a guardian representative of that church?—Yes.

131. You are a member of their annual committee?—Yes.

132. That, I think, is a committee which acts in exercise of the powers of the conference when the conference is not sitting; am I right there?—Yes.

133. You have been treasurer for the Contingent Fund for 10 years?—Yes.

134. And you are a trustee of a number of chapels of the Connexion?—Yes.

135. You were Mayor of Sheffield in 1894 and 1895, and you are a justice of the peace and a merchant manufacturer of Sheffield?—Yes.

136. Can you tell the Committee what your knowledge is of the feeling throughout your Connexion in favour of the proposed union?—The active opposition to the union has been confined to one family, and the members of that family have now retired from their opposition and are entirely in accordance with the general feeling of the denomination.

137. And, in your view, will the union be likely to promote economy and efficiency in

Mr. Pember—continued.

administration?—Yes, I think so, decidedly, and I hail the union as a token of what is coming through the world, that there is to be more of union and less of division.

Sir John Randles.

138. You are quite satisfied that the people of your denominational church realise the meaning of the clause relating to the variation in the trusts as to doctrinal steps?—I give them credit for doing so.

139. You would regard it, I presume, as a calamity if the church became Unitarian?—Well, I will not be there then.

140. Then you do not mind?—Well, “Sufficient unto the day is the evil thereof.” We are hoping that this is a preliminary step to union in the larger body—in the mother body—and I think all of us can leave the question of doctrine absolutely to that larger body when it will come, and I hope it will come very soon.

Mr. Pember.] With your permission, I should like to call one more witness, a layman from the Bible Christian Church—Mr. George Pearse Dymond—that will be my last witness.

Mr. GEORGE PEARSE DYMOND; sworn.

Mr. Pember.

141. You are a lay member of the Bible Christian Connexion, are you not?—That is so.

142. And a member of their examining committee and of their Connexional committees?—Yes.

143. I think for the past 17 years you have been a member of their conference?—I have.

144. You are the principal of the Hoe Grammar School at Plymouth?—Yes.

145. You are also a Master of Arts of London and local secretary of the Teachers' Guild and Oxford Local Examinations?—Yes.

146. You were formerly president of the South Devon and East Cornwall Federation of Free Churches?—That is so.

147. Can you tell the Committee what your knowledge is as to the feeling throughout your Connexion as to the present Bill?—Being situated at Plymouth I am in the centre of the historic part of our denomination, because our denomination began its work chiefly in Devon and Cornwall; I have therefore had an opportunity of witnessing the great change of feeling that has come over the people, as they have got to understand what these negotiations involve.

271.

Mr. Pember—continued.

At first, of course, there was a sentimental feeling of aloofness; but as they have come to realise what advantages would accrue from such a union as this they have become converted to the whole thing, so that some who at first opposed are now warm supporters. There are many instances of that kind.

148. In your view, will the union, if sanctioned by Parliament, be productive of considerable advantages to all the three bodies?—Oh, a great advantage without doubt.

Chairman.] Sir John Randles wishes to ask a question of the learned Counsel representing the Attorney-General.

Sir John Randles.] What I wanted to get at was this. In reference to the clause giving power to vary the trusts, I wanted to ask whether you think that it would be possible for such a variation to take place as that—by a three-fourths majority even—they should become, say, Unitarian (I only use that as an illustration), I should like to get your opinion as to whether they would not still be liable to an action; whether it would give

C

4 July 1907.

give them power to so deviate from being what is known as a Methodist Free Church, and becoming, say, a Unitarian Church; whether the common law would not prevent that, notwithstanding what is in this clause.

Mr. Beaumont.] You are asking me there rather a difficult question.

Sir John Randles.] It is difficult; that is why I asked you; because I do not know myself.

Mr. Beaumont.] I put the point to the Attorney-General last night. I said: There must be some power to vary; you must have two sides; you might have Unitarianism on one side and Roman Catholicism on the other, but still privileges they must have—power; would you entirely approve of that being the power? We did not go into the question of the possibility of the common law interfering; and when you say “common law” you mean the Court of Chancery?

Sir John Randles.] Yes.

Mr. Beaumont.] The courts do allow variations, of course, in charitable trust. As you know in Chancery we have new schemes perpetually made; and I noticed particularly what one of the witnesses said:—He said: “Well, I shall not be here then,” in reply to the question put to him as to whether it would be right if a hundred thousand pounds was left for a particular purpose, that that purpose should be varied and the money applied to some other purpose hereafter, that they should change its use to another purpose for the teaching of other doctrines. My own opinion, if I may respectfully say so, is, that you must have a variation in doctrines from time to time. I have been most carefully through the doctrines of these particular churches and I notice the way in which they are now proposing, by their three-fourths majority, to ask you to sanction a proposed change. Unquestionably they are making and must make sensible changes. Very frequently the doctrines in some of these old Acts are expressed in very crude language, and in some of the changes that are made the changes are bringing them into more scriptural language and there is no doubt that in these matters there must be some elasticity; and my idea is, Sir, that they must remain so in the future. The three-fourths majority for practical purposes is a safe course to adopt. I quite recognise what the honourable member of the Committee put to me, but it would be a little difficult to say what a court would say to such a question—whether it could or would stop them from using it if there had been a complete change, as, of course, a change to Unitarianism would be.

Sir John Randles.] A violent change.

Mr. Beaumont.] A violent change. Practically I do not think the question will arise; but if such a thing were proposed as a change to Unitarianism, I can imagine its being a question for the court; but whether it would be allowed by the judge of a future court or not, I should be sorry to say. I am sorry I cannot give a better answer to your question, Sir, but you see the difficulty.

Sir John Randles.] Yes, I have discussed the same point with the Attorney-General.

Mr. Beaumont.] My friend desires me to call your attention to an Act of 1905, an Act to confirm the amalgamation of the Orphan Working School and the Alexandra Orphanage. When Sir Robert Finlay was Attorney-General he made a report in the ordinary way to the House of Lords on this question, and this Act was passed combining those two charities, and there the House did allow a variation, because, under the trusts of one of the charities—the Orphan Working School, as it then existed—the children were to “attend the public worship of God in some congregation of Protestant Dissenters.” Well, the word “Dissenters” was knocked out by the authority of Parliament under this Act—you see the force of what I mean—so that you see Parliament does sometimes allow a change, even in the case of charitable purposes.

Chairman.] In looking at this clause, I feel quite satisfied that if this Bill is passed, the United Methodist Free Church, in the manner laid down in the Bill, would have full power to adopt any new provisions in regard to doctrine or otherwise; it is necessary that they should have power—and the fullest power.

Mr. Pember.] That, Sir, is my case.

Chairman.] The Committee are unanimous in passing the Preamble of the Bill. They will now adjourn for half an hour, or, say till ten minutes past two, and then go through the clauses.

Mr. Beaumont.] Will you want me further now that you are going through clauses? Of course, the Attorney-General has directed me to attend to give any possible assistance I can to the Committee.

Chairman.] I do not think it is necessary to ask you to come back, but before you go, there is a new clause provided—section 17A.

Mr. Beaumont.] I had better come back.

Chairman.] No, I think we will just settle this point before we adjourn. It is a very small point, but I think I would like your opinion upon it. It says, “In any case where by the will of any person, whether having died before or dying after the passing of this Act,” property is left to the church; then in line 7: “any trustees in whom such bequest is vested under his will are unable for any reason to obtain the receipt” it enables the treasurer for the time being to give a receipt, and I think the words “under his will” ought to be omitted. It is “the will of any person.” I think the words “under his will” confine it to a testator, and I think it should include a testatrix; therefore, if you strike out the words “under his will,” the substance and clear meaning of the clause is still conveyed. It is better out.

Mr. Beaumont.] The clause is one with the nature of which we are very familiar in these charitable trust Bills.

Adjourned for a short time.

The Preamble of the Bill was read and agreed to.

The Clauses of the Bill, with amendments, were severally read and agreed to.

The *Chairman* was directed to report the Bill, as amended, to the House.

R E P O R T
FROM THE
SELECT COMMITTEE
ON
UNITED METHODIST CHURCH
BILL [H.L.] ;
TOGETHER WITH THE
PROCEEDINGS OF THE COMMITTEE,
AND
MINUTES OF EVIDENCE.

Ordered, by the House of Commons, to be Printed,
26 July 1907.

[*Price 3d.*]

271.

Under 3 oz.

R E P O R T

FROM

STANDING COMMITTEE C

ON THE

VACCINATION BILL.

WITH THE

PROCEEDINGS OF THE COMMITTEE.

*Ordered, by The House of Commons, to be Printed,
18 June, 1907.*

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1907.

1907.

STANDING COMMITTEE C.

[Monday, 4th March, 1907] :—Mr. Stuart-Wortley reported from the Chairman's Panel: That they had agreed to the following Resolution, That any Member of the Chairman's Panel be and he is thereby empowered to ask any other Member of the Chairman's Panel to take his place in case of necessity.

[Wednesday, 6th March, 1907] :—Standing Committees,—Ordered, That all Standing Committees have leave to print and circulate with the Votes the Minutes of their Proceedings, and any amended Clauses of Bills committed to them.

[Tuesday, 23rd April, 1907] :—Selection (Standing Committees and Chairmen's Panel),—Sir William Brampton Gurdon reported from the Committee of Selection; That they had nominated the following Members to serve on the three Standing Committee for the consideration of all Public Bills not relating exclusively to Scotland, which may be committed to a Standing Committee :—

STANDING COMMITTEE C.

Mr. William Abraham (Cork).	Mr. Lehmann.
Mr. Ainsworth.	Mr. Lloyd-George.
Mr. Alden.	Colonel Charles Long.
Mr. Harmood-Banner.	Mr. Walter Long.
Mr. Barran.	Sir Philip Magnus.
Sir John Benn.	Major M'Micking.
Mr. Billson.	Mr. Jeremiah MacVeagh.
Mr. Bowles.	Viscount Morpeth.
Mr. Brace.	Mr. Napier.
Mr. Bramsdon.	Mr. Paul.
Mr. Carlile.	Earl Percy.
Mr. Cheetham.	Mr. Pickersgill.
Mr. Herbert Craig.	Mr. William Priestley.
Mr. Cremer.	Mr. William Redmond.
Mr. Cross.	Mr. Rees.
Mr. Cullinan.	Mr. George Henry Roberts.
Mr. Dickinson.	Sir George Scott Robertson
Sir Frederick Dixon-Hartland.	Mr. Abel Smith.
Mr. Dolan.	Mr. Soames.
Sir George Doughty.	Sir Albert Spicer.
Mr. Duckworth.	Sir Edward Strachey.
Mr. Charles Duncan.	Mr. John Taylor.
Mr. James Duncan.	Mr. Thornton.
Mr. Clement Edwards.	Mr. Verney.
Mr. Everett.	Sir Howard Vincent.
Mr. Denison Faber.	Mr. Vivian.
Mr. Findlay.	Mr. Walker.
Mr. Munro Ferguson.	Mr. Warner.
Mr. Hart-Davies.	Mr. George White.
Mr. Hayden.	Mr. Whitehead.
Mr. Healy.	Mr. Osmond Williams.
Mr. Idris.	Lord Willoughby de Eresby.
Mr. Atherley Jones.	Mr. Young.
Mr. Kearley.	

[Monday, 29th April, 1907] :—Standing Committees (Chairmen's Panel),—Mr. Stuart-Wortley reported from the Chairmen's Panel; That they had appointed Sir Thomas Esmonde to act as Chairman of the Standing Committee A; Mr. John William Wilson to act as Chairman of Standing Committee B; Mr. Laurence Hardy to act as Chairman of Standing Committee C; and Mr. Eugene Wason to act as Chairman of the Standing Committee on Scottish Bills.

[Friday, 24th May, 1907] :—Vaccination Bill,—Order for Second Reading read ;
Motion made, and Question proposed, "That the Bill be now read a Second time :"—

Amendment proposed, to leave out the word "now," and at the end of the Question to add the words "upon this day three months :"—(Sir John Batty Tuke :)—

Question put, "That the word 'now' stand part of the Question :"—The House divided ;
Ayes 122, Noes 14.

Main Question put, and *agreed to*.

Bill read a second time, and *committed* to a Standing Committee.

[*Monday, 27th May, 1907.*

DISTRIBUTION BY MR. SPEAKER, PURSUANT TO STANDING ORDER 47.
OF BILLS COMMITTED TO A STANDING COMMITTEE.

Name of Bill.	Standing Committee.
Vaccination Bill	C.

[*Tuesday, 28th May, 1907*]:—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C: Mr. George Roberts; and had appointed in substitution: Mr. Shackleton.

[*Tuesday, 28th May, 1907*]:—Sir William Brampton Gurdon *reported* from the Committee of Selection: That they had discharged the following Members from Standing Committee C (in respect of the Vaccination Bill): Mr. Lloyd-George and Mr. Kearley; and had appointed in substitution (in respect of the Vaccination Bill): Mr. Burns and Dr. Macnamara.

Sir William Brampton Gurdon further *reported* from the Committee; That they had added to Standing Committee C the following fifteen Members (in respect of the Vaccination Bill):—Mr. Lupton, Mr. Ramsay Macdonald, Mr. Enoch Edwards, Mr. Wedgwood, Captain Kincaid-Smith, Mr. Sears, Mr. Horniman, Sir William Collins, Sir John Tuke, Mr. Cave, Mr. Burdett-Coutts, Mr. Houston, Mr. Walrond, Mr. Ffrench, and Mr. Flavin.

[*Wednesday, 29th May, 1907*]:—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C (in respect of the Vaccination Bill): Sir Edward Strachey; and had appointed in substitution: Mr. Attorney-General.

[*Thursday, 30th May, 1907*]:—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C (added in respect of the Vaccination Bill): Mr. Houston; and had appointed in substitution (in respect of the Vaccination Bill): Sir Henry Craik.

[*Friday, 31st May, 1907*]:—Selection (Standing Committees),—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C (added in respect of the Vaccination Bill): Mr. Flavin; and had appointed in substitution (in respect of the Vaccination Bill): Mr. William Harvey.

[*Wednesday, 5th June, 1907*]:—Selection (Standing Committees),—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Members from Standing Committee C (in respect of the Vaccination Bill): Mr. Munro Ferguson; and had appointed in substitution (in respect of the Vaccination Bill): Mr. Ashton.

[*Friday, 7th June, 1907*]:—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C: Mr. Everett; and had appointed in substitution: Sir Francis Channing.

[*Wednesday, 12th June, 1907*]:—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C (in respect of the Vaccination Bill): Sir John Benn; and had appointed in substitution (in respect of the Vaccination Bill): Mr. Bright.

[*Friday, 14th June, 1907*]:—Sir William Brampton Gurdon *reported* from the Committee of Selection; That they had discharged the following Member from Standing Committee C (in respect of the Vaccination Bill): Mr. Ainsworth; and had appointed in substitution (in respect of the Vaccination Bill): Mr. Watt.

R E P O R T.

STANDING COMMITTEE C, to whom the VACCINATION BILL was referred;—Have gone through the Bill, and made Amendments thereunto.

18th June, 1907.

STANDING COMMITTEE C,

Wednesday, 12th June, 1907.

MEMBERS PRESENT:

Mr. LAURENCE HARDY in the Chair.

Mr. Ashton.	Captain Kincaid-Smith.
Mr. Harmood-Banner.	Mr. Lehmann.
Mr. Billson.	Colonel Long.
Mr. Burns.	Mr. Lupton.
Mr. Carlile.	Dr. Macnamara.
Sir Francis Channing.	Sir Philip Magnus.
Mr. Cheetham.	Mr. Napier.
Sir William Collins.	Mr. Pickersgill.
Sir Henry Craik.	Mr. Rees.
Mr. Cremer.	Sir George Scott Robertson.
Mr. Dickinson.	Mr. Sears.
Sir Frederick Dixon-Hartland.	Mr. Shackleton.
Mr. Findlay.	Mr. Thornton.
Mr. Hart-Davies.	Sir John Batty Tuke.
Mr. W. E. Harvey.	Mr. Verney.
Mr. Hayden.	Mr. Walker.
Mr. Horniman.	Mr. Whitehead.
Mr. Idris.	

VACCINATION BILL.

Clause 1.

Amendment proposed, in page 1, to leave out from the first word "The," in line 5, to the word "Act" in line 6 (both inclusive)—(*Mr. Lupton*).—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 1, line 9, after the word "if," to insert the words "at the registration of birth or"—(*Sir William Collins*).—Question put, "That those words be there inserted."—The Committee divided:

Ayes, 15.

Mr. Ashton.
Sir Francis Channing.
Sir William Collins.
Mr. Hart-Davies.
Mr. William Harvey.
Mr. Horniman.
Mr. Idris.
Mr. Lehmann.

Noes, 16.

Mr. Billson.
Mr. Burns.
Mr. Carlile.
Mr. Cheetham.
Sir Henry Craik.
Sir Frederick Dixon-Hartland.
Mr. Hayden.
Captain Kincaid-Smith.

Ayes—*continued*.

Mr. Lupton.
 Mr. Pickersgill.
 Sir George Scott Robertson.
 Mr. Sears.
 Mr. Shackleton.
 Mr. Verney.
 Mr. Walker.

Noes—*continued*.

Colonel Long.
 Dr. Macnamara.
 Sir Philip Magnus.
 Mr. Napier.
 Mr. Rees.
 Mr. Thornton.
 Sir John Tuke.
 Mr. Whitehead.

Another Amendment proposed, in page 1, line 9, to leave out the word “four,” in order to insert the word “six”—(*Mr. Pickersgill*)—instead thereof.—Question proposed, “That the word ‘four’ stand part of the Clause.”

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 1, line 9, to leave out the words “four months,” in order to insert the words “five years”—(*Mr. Lupton*)—instead thereof. Question proposed, “That the words ‘four months’ stand part of the Clause.”

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 1, line 10, to leave out the words “birth of the child,” in order to insert the words “date of the receipt of the notice specified in Section 1, Subsection (3) of the Vaccination Act 1898”—(*Mr. Lupton*)—instead thereof.—Question, “That the words proposed to be left out stand part of the Clause,”—put, and *agreed to*.

Another Amendment proposed, in page 1, line 10, to leave out the word “he,” in order to insert the words “either parent or such other person, as the case may be”—(*Mr. Pickersgill*)—instead thereof.—Question put, “That the word ‘he’ stand part of the Clause.”—The Committee divided:

Ayes, 14.

Mr. Harmood-Banner.
 Mr. Burns.
 Mr. Carlile.
 Mr. Cheetham.
 Sir Henry Craik.
 Mr. Cremer.
 Mr. Hayden.
 Colonel Long.
 Dr. Macnamara.
 Sir Philip Magnus.
 Mr. Napier.
 Mr. Rees.
 Mr. Thornton.
 Sir John Tuke.

Noes, 16.

Mr. Ashton.
 Mr. Billson.
 Sir Francis Channing.
 Sir William Collins.
 Mr. Findlay.
 Mr. W. E. Harvey.
 Mr. Horniman.
 Mr. Idris.
 Mr. Lupton.
 Mr. Pickersgill.
 Sir George Robertson.
 Mr. Sears.
 Mr. Shackleton.
 Mr. Verney.
 Mr. Walker.
 Mr. Whitehead.

Question, “That those words be there inserted,”—put, and *agreed to*.

[Adjourned till Tuesday, 18th June, at half-past eleven o'clock.]

Tuesday, 18th June, 1907.

MEMBERS PRESENT:

Mr. LAURENCE HARDY in the Chair.

Mr. Alden.	Colonel Long.
Mr. Ashton.	Mr. Lupton.
Mr. Barran.	Mr. Ramsay Macdonald.
Mr. Billson.	Dr. Macnamara.
Mr. Bramsdon.	Sir Philip Magnus.
Mr. Bright.	Mr. Napier.
Mr. Burns.	Earl Percy.
Mr. Carlile.	Mr. William Redmond.
Mr. Cheetham.	Mr. Rees.
Sir William Collins.	Sir George Scott Robertson.
Mr. Herbert Craig.	Mr. Sears.
Sir Henry Craik.	Mr. Soames.
Sir George Doughty.	Sir John Tuke.
Mr. Hart-Davies.	Mr. Verney.
Mr. Horniman.	Mr. Walker.
Mr. Idris.	Mr. Wedgwood.
Captain Kincaid-Smith.	Mr. Whitehead.
Mr. Lehmann.	Mr. Osmond Williams.

VACCINATION BILL.

Clause 1, further considered.

Another Amendment proposed, in page 1, line 10, after the word "declaration," to insert the words "before a justice of the peace sitting in petty sessions"—(*Sir Henry Craik*)—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 1, line 10, after the word "declaration," to insert the words "which may be made before the chairman of a parish council"—(*Mr. Ashton*)—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 1, lines 11 and 12, to leave out the words "believes that vaccination would be prejudicial to the health of the child," and insert the words "objects to the vaccination of the child"—(*Sir William Collins*)—instead thereof.—Question proposed, "That the words proposed to be left out stand part of the Clause."

Amendment, by leave, *withdrawn*.

An Amendment made, in page 1, line 13, after the word "delivers," by inserting the words "or sends by post"—(*Mr. Lupton*).

Another Amendment proposed, in page 1, line 19, after the word "effect," to insert the words :

"Registrars of births shall furnish to every parent or person registering a birth a form of declaration ready to be filled in free of all charge or cost to such parent or person.

The postmaster or postmistress of every post office shall supply a form of statutory declaration ready to be filled in at a charge of one penny for each form"

—(*Mr. Lupton*).—Question proposed, "That those words be there inserted."

Amendment, by leave, *withdrawn*.

Another Amendment proposed, in page 1, line 19, after the word "effect," to insert the words :

"(6) A declaration made within twelve months from the first day of January, nineteen hundred and eight, with reference to a child born before the first day of January, nineteen hundred and eight, shall have the same effect as if made in accordance with the terms of subsection one"

—(*Mr. Lupton*).—Question put, "That those words be there inserted."—The Committee divided :

Ayes, 11.

Mr. Ashton.
Mr. Bright.
Sir William Collins.
Mr. Herbert Craig.
Mr. Lehmann.
Mr. Lupton.
Mr. Ramsay Macdonald.
Mr. Sears.
Mr. Walker.
Mr. Wedgwood.
Mr. Osmond Williams.

Noes, 22.

Mr. Alden.
Mr. Barran.
Mr. Billson.
Mr. Bramsdon.
Mr. Burns.
Mr. Cheetham.
Sir George Doughty.
Mr. Horniman.
Mr. Idris.
Captain Kincaid-Smith.
Colonel Long.
Dr. Macnamara.
Sir Philip Magnus.
Mr. Napier.
Earl Percy.
Mr. William Redmond
Mr. Rees.
Sir George Scott Robertson.
Mr. Soames.
Sir John Tuke.
Mr. Verney.
Mr. Whitehead.

Clause, as amended, *agreed to*.

Clause 2.

An Amendment made, in page 1, line 22, by leaving out the word "passing," and inserting the word "commencement"—(*Mr. Burns*)—instead thereof.

Clause, as amended, *agreed to*.

Clause 3, *agreed to*.

Schedule, *agreed to*.

Ordered,—To Report the Bill, as amended, to the House.

R E P O R T

FROM

STANDING COMMITTEE C

ON THE

VACCINATION BILL.

WITH THE

PROCEEDINGS OF THE COMMITTEE.

*Ordered, by The House of Commons, to be Printed,
18 June 1907*

[*Price 1½l.*]

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Under 202

REPORT

FROM THE

SELECT COMMITTEE

ON

YORK (MICKLEGATE STRAYS) BILL. [H.L.]

WITH THE

PROCEEDINGS OF THE COMMITTEE.

*Ordered, by The House of Commons, to be Printed
19 August 1907.*

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1907.

ORDER OF REFERENCE.

YORK (MICKLEGATE STRAYS) BILL [LORDS].

[Tuesday, 13th August 1907]:—Order for Consideration, as amended, read;

Motion made, and Question proposed, “That the Bill, as amended, be now considered.”—

Amendment proposed to leave out from the word “be” to the end of the Question, and add the words “re-committed to a Select Committee,”—(Mr. *Arthur Henderson*,.)—instead thereof:—

Question, “That the words proposed to be left out stand part of the Question,” put, and negatived:—Words *added*:—

Main Question, as amended, put, and *agreed to*.

Bill, as amended, re-committed to a Select Committee.

YORK (MICKLEGATE STRAYS) [RE-COMMITTED] BILL [LORDS].

[Thursday, 15th August 1907]:—The Select Committee on the York (Micklegate Strays) (re-committed) Bill [Lords] was nominated of,—Mr. Charles Corbett, Sir Joseph Leese, Mr. George Nicholls, Mr. John O'Connor, Mr. Parker, Earl of Ronaldshay, and Mr. Waterlow.

Ordered, That the parties interested have leave to be heard by themselves, their counsel, agents, or witnesses.

Ordered, That the Committee have power to send for persons, papers, and records.

Ordered, That Three be the quorum.—(Mr. *Whitley*.)

ORDER OF REFERENCE	- - - - -	p. ii.
REPORT	- - - - -	p. iii.
PROCEEDINGS OF THE COMMITTEE	- - - - -	p. v.

R E P O R T.

THE SELECT COMMITTEE to whom the YORK (MICKLEGATE STRAYS) (re-committed) BILL [LORDS] was referred, have agreed to the following Report :—

That the Bill gives no powers relating to police and sanitary regulations.

That the Bill does not give any powers which may be obtained by means of bye-laws made subject to the restrictions of general Acts already passed.

That the Bill does not assign a period for the repayment of any loan exceeding sixty years, or any period disproportionate to the objects of the loan.

That the Bill does not give borrowing powers for any purposes for which such borrowing powers already exist or may be obtained under general Acts without subjecting the exercise of the powers under the Bill to approval from time to time by the proper Government Department.

That the borrowing powers given by the Bill, the purposes for which the loans are authorised, and the period assigned for the repayment appear in the Appendix.

That Reports from the Secretary of State for the Home Department, from the Local Government Board, and from the Board of Agriculture and Fisheries relative to the Bill as originally deposited has been referred to the Committee and considered by them, but it appeared that the recommendations contained therein had, so far as the Committee deemed necessary, been substantially complied with by the Amendments made in the Bill in its passage through the House of Lords (and in the Committee of this House to whom the Bill was previously referred).

That no supplemental Reports were laid before the Committee.

That a letter from the Treasury enclosing a letter from the Charity Commissioners, with a Report of the Attorney-General on the Bill, was laid before the Committee, and the Committee altered the Bill to carry out the recommendations contained in the Report.

The Committee also altered the Scheduled Agreement reducing the term to thirty-five years and increasing the rent to £1,000 per annum for the whole term.

That there are no other circumstances of which, in the opinion of the Committee, it is desirable that the House should be informed.

Sir Joseph Leese further reported from the Committee : That they had examined the allegations contained in the Preamble of the Bill and had found the same to be true and had gone through the Bill and made Amendments thereunto.

APPENDIX.

Showing the Borrowing Powers in the Bill, the purposes for which the Loan is authorised, and the periods assigned for repayment.

Number of Clause in Bill as amended in Committee of House of Commons laid before Committee.	Amount authorised.	Purposes for which Loan is authorised.	Period assigned for Repayment.
31	Sum necessary.	Cost of Act.	5 years.
	Sum necessary.	Redemption of yearly sum of £1,000 payable to Freeman's Committee.	60 years from commencement of Act.

PROCEEDINGS OF THE COMMITTEE.

Thursday, 15th August 1907.

MEMBERS PRESENT :

Mr. C. H. Corbett.
Sir Joseph Leese.
Mr. Parker.

Earl of Ronaldshay.
Mr. Waterlow.
Mr. George Nicholls.

Sir JOSEPH LEESE was called to the Chair.

The Committee deliberated and appointed Monday next for the first meeting of the Committee to proceed with the Bill.

[Adjourned until Monday next at Twelve o'clock.

Monday, 19th August 1907.

MEMBERS PRESENT :

Sir JOSEPH LEESE in the Chair.

Mr. Charles Corbett.
Mr. George Nicholls.
Mr. John O'Connor.

Mr. Parker.
Earl of Ronaldshay.
Mr. Waterlow.

The Preamble was read the first time.

Mr. *Honoratus Lloyd*, K.C., was heard to address the Committee in support of the Preamble of the Bill and called evidence.

Mr. *Henry Craven* sworn and examined.

Sir *Joseph Sykes-Rymer* sworn and examined.

This was the case for the Promoters.

Mr. Alderman *Robert Wragge* and Mr. *Stanley Browne*, Mr. *J. M. Hartley* and Mr. Councillor *Richard Lambert* gave evidence on behalf of the dissentient citizens of York.

Mr. *Walter Scruton* gave evidence on behalf of the dissentient Freemen of York.

Mr. *C. A. Cooke*, attending at the desire of the Committee, made a statement on behalf of the Charity Commissioners.

Mr. *Ram*, K.C., called evidence on behalf of the Freemen of the Micklegate Ward in the City of York.

Mr. *John Richardson Wood* sworn and examined.

Mr. *Ram*, K.C., was heard to address the Committee on behalf of the Freemen of the Micklegate Ward in the City of York.

Mr. *Wedderburn*, K.C., called evidence on behalf of the York Race Committee.

The Hon. *Reginald Parker* sworn and examined.

The Viscount *Downe*, attending by permission of the House of Lords, sworn and examined.

Colonel *Bates* sworn and examined.

Mr. *Wedderburn*, K.C., was heard to address the Committee on behalf of the York Race Committee.

Mr. *Honoratus Lloyd*, K.C., was heard in reply on the whole case.

Room cleared. The Committee deliberated.

Question, That the Preamble is proved subject to an amendment in Clause 30 giving the Charity Commissioners power to form a scheme for the distribution of the yearly sum paid in respect of the Freemen's rights over the Micklegate Strays and to further amendments in the Schedule of the Bill—put and agreed to.

Parties called in and informed of the decision of the Committee.

Clauses considered, amended and *agreed to*.

✓ Schedule amended and *agreed to*.

Report read and *agreed to*.

Ordered : To Report.

REPORT

FROM THE

SELECT COMMITTEE

ON

YORK (MICKLEGATE STRAYS) BILL. [H.L.]

WITH THE

PROCEEDINGS OF THE COMMITTEE

*Ordered, by The House of Commons, to be Printed,
19 August 1907.*

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